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Regenerative Mall:
from *spaces* of consumption to *places* of production

by

Jennifer Kiel

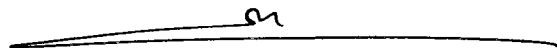
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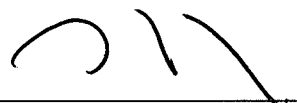
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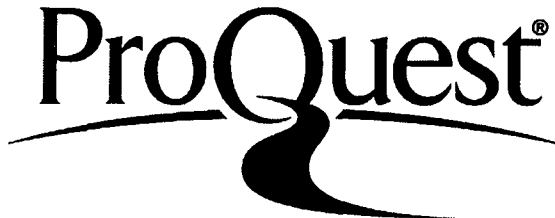
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ABSTRACT

Regenerative Mall: From *Spaces* of Consumption to *Places* of Production

by Jenny Kiel

United States is a country of shoppers, leaving hundreds of malls scattered around the country surrounded by fields of parking, waiting for the 30-year lifecycle to run its course.

When the economic crisis hit in 2008, it became clear that it wasn't just the economy that was dependent on retailer's success, "public spaces" were also dependent. As malls close, the gathering spaces that offered a privatized version of the so beloved "public sphere" close as well. This thesis argues that the decline and fall of these "public spaces" resides in the mall's monofunctional nature and isolation.

This thesis proposes a methodology of mall reanimation that transforms the inherited concept of the mall as a *space* of consumption into the mall as a *place* of production. Finally, this thesis aims to offer a capitalistic view on sustainable and profitable development that questions the ultimate form of suburban sprawl and land subdivision.

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There are a few people that I need to thank for the many hours that they put into this thesis through support and guidance. I would like to first thank my thesis director, Carlos Jimenez for his constant inspiration, encouragement, and guidance. On a similar note, I would like to thank Eva Franch for challenging the thesis and questioning its direction at every turn.

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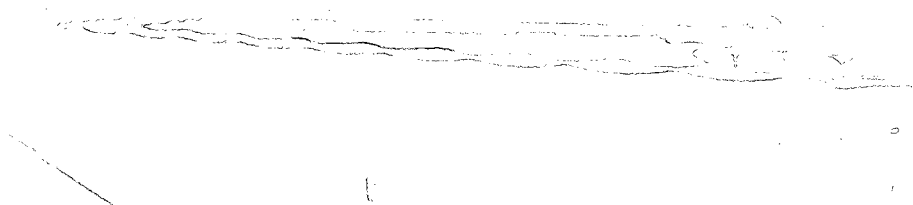
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REGENERATIVE MALL

from **spaces** of consumption to **places** of production



Thesis by: Jenny Kiel, Director: Carlos Jimenez, Advisor: Eva Franch

Introduction

Within today's economic climate, retailers are closing doors. Consumers are frightened to spend even if they have the money to spend. Very large banks are closing and merging. The US government is handing over almost \$800 billion to save some companies from failing. The ironic thing about all of this is the amount of retail space that has been built everywhere in every American city is about 20.2 square feet per person, much more than any other country¹. The American culture depends on the act of shopping and the spaces shopping provides as a strategy for creating so called "public spaces". The last several months of retail stores closing has made it even more apparent that public space and retail space are aligned.

Shopping can be thought of generally in two overarching categories: the individual and the collective. Fetishism and branding both strongly appeal to the individual's sense of belonging and desire. Globalization in the individualistic sense is because of similar desires for brands and similar fetish qualities to certain brands. The opportunity to outwardly express one's identity through brands of clothing and electronics is allowed equally around the world as brands expand their markets. The collective is about the experience of shopping as an activity. The feelings of belonging to a larger group are not necessarily met through the consumption of goods as discussed earlier in the individualistic

¹ Dunham-Jones, Ellen. *Retrofitting Suburbia: Urban Design Solutions for redesigning suburbs*. Hoboken: John Wiley & Sons, 2009.

category but through the engagement with others. In this overall category shopping plays the role of being an activity of leisure or therapy.

A shift away from individual's desires for consumption is happening towards a collective awareness about consumption of products: where they were made, from what materials, and who made them. Newsweek reported at the end of 2008: "Even those who are still buying new are viewing shopping through a changed lens: almost 40 percent of people between the ages of 18 and 30 prefer to use brands that are 'socially conscious'—environmentally safe and produced through fair labor—according to research by Alloy Media and Marketing, a youth-focused ad agency."²

When this shift away from individualism to more of the collective form of shopping happens, leisure in shopping starts to take precedent over shopping's fetishism and branding for more socially conscious types of buying. Shopping as a means of emotional therapy starts to take on a new definition of not necessarily therapy for the individual to recover self-esteem or forget about troubles, but therapy for a sort of collective cleansing. Globalization becomes more about the awareness of how products were produced, where they come from, and who was making them to emphasize a more localized understanding of consumption.

² Dokoupil, Tony. "Retail: Is the American Shopping Mall Dead?" *Newsweek*, 2008 Nov. 12.

History of shopping

The importance of shopping and consuming goods in the United States has grown into the most dominant driver of economic activity. According to the National Retail Federation, consumer spending in the United States is the driver of approximately 2/3 of all US economic activity and over the last 16 years, personal consumption in the US has steadily increased. It's been a long time since the era of barter shopping where the relationship between the producer and consumer is more closely tied together. Over the course of the last century, the introduction of first mass production, media and advertising, and finally a global perspective of production have grown the dichotomy between production and consumption. As the distance grows between those who consume and those who produce, products are developing meaning in value and identity for those who consume them. "Deprived as we are of direct contact with nature or with making goods ourselves, shopping gives us a way to satisfy our drive for beauty, to get what we think is the best, and to hone our ability to make judgments, shape time, use money. We shop because we long for value-for a virtuous ideal of value that we no longer get from religion, work or politics."³

Designer labels offer meaning not only what is bought but also where and how.

Brands emerge between 1960 and 1980 to satisfy the consumer desire of displaying individual identity and social status. The entire purpose of having a

³ Zukin, Sharon. *Point of Purchase: How Shopping changed American Culture*. New York: Routledge, 2004. p.8

brand started when there was all of sudden a mass influx in the number of products on the market after World War II. To help consumers become familiar and comfortable with the products, brands were created to personify companies. They provide a sense of membership in national culture. "The social spaces and cultural labels of shopping offer us hope of achieving the American Dream: Low prices define our conception of democracy. Brand names represent our search for a better life. Designer Boutiques embody the promise of an ever improving self."⁴ In the 1960s the American economy shifted its focus from mass production and manufacturing to service industries and global integration. Production moved overseas where labor was less expensive and businesses had fewer government restrictions.

With the growing importance of brands and designer products, the spaces for consumption grew in importance as well. The invention of the department store between 1880 and 1920 revolutionized shopping into a leisure activity through a fixed price system, standardized goods, and an architectural spectacle designed to lure in customers. For the first time, it was acceptable to spend an entire day shopping at the department store. It was the place to buy everything one needed and then some more. The shopping mall as invented by Victor Gruen was the suburban model of the turn of the century department store. As growth on the perimeter of most American cities took root, trips to town to go to

⁴ Zukin, Sharon. *Point of Purchase: How Shopping changed American Culture*. New York: Routledge, 2004. p.8

the department store were more tedious than leisurely. Gruen felt these new suburbanites needed their own town square for shopping and civic functions.

In 1956, the world's first enclosed mall opened, Victor Gruen's Southdale Center in Minnesota. It was designed to be an ideal downtown, a clean, safe, urban environment for the growing suburban way of life. It was a popular and extremely successful solution to introduce a public life into an otherwise subdivided landscape. Developers meanwhile were encouraged financially by the way this mall typology created a space that dazzled the consumer into spending more money. This was the beginning of the modern day mall.

Full scope of Gruen's suburban civic center stopped short of being built. Only the shopping mall portion of his design was ever realized. Instead, the mall later became about entertainment, spectacle and leisure to attract consumers to a place where desires and excess are encouraged. By the 1980s the mall was so ingrained into the American culture as an epicenter of American life, it inspired movies such as Dawn of the Dead where a group of teenagers take refuge in the mall, a place of familiarity, to save themselves from the zombies. American's in the 80s were spending an average of 12 hours a month in the mall but by 1990 that average fell to only 4 hours spent a month in the mall. Shopping center

vacancies were running at almost 12 percent nationwide. Meanwhile, 300 million square feet of shopping center space was added that year in the US.⁵

When it was apparent the mall typology was no longer working, new typologies started to become more popular, however many still have the qualities that led to the slow decline of the mall prototype in the first place. The changes in the retail model post-mall have included the Strip Mall in the mid 1980s that responded to consumer's lessened leisure time, the Entertainment Complex in the mid 1990s that was meant to attract more people first through entertainment (defined leisure activity), and the Lifestyle Center that uses themed style living to attract shoppers.

Since the introduction of the mall as a building typology, four planning and architectural concepts have surfaced in its design: the "urban street," "retailtainment," "cultural institution," and the "park." The original mall concept in response to the city's growing scale to accommodate the automobile is the "urban street" concept. This concept uses an idealized 19th century urban pedestrian only street life as its inspiration by densifying the stores locations and creating an urban space between them. For example, the Mab Zeil Commercial Center in Frankfurt, Germany uses contemporary steel and glass construction to create central spaces not unlike the arcades of the 19th century by emphasizing

⁵ "The Dead Mall" *Metropolis*. 1993 Nov. v. 13 n. 4 p. 47

bringing light into the center of the space on each floor. Massimiliano Fuksas describes his project as the following, ““This is not a building. It’s an urban space.””⁶

The Mega Mall/Themed Mall was a phenomenon in the 1990s that tapped into the desire to travel and shop within a preconceived image of place. Most include every form of entertainment within the mall as well as hotels and residential space. Leisure in these malls becomes the focus to attract potential customers. These malls have become so common the term “retailtainment” was coined specifically to describe the phenomenon. The first of its kind, Mall of America, in Bloomington, Minnesota, opened in 1992. The latest is Xanadu Meadowlands Mall in New Jersey that has yet to open as of early 2010 but has been highly anticipated and yet ill-timed. “When it’s finished, the half-mile “retailtainment” center will be a Vegas-meets-Disneyland pleasure dome with the country’s tallest Ferris wheel and first indoor artificial ski slope.”⁷ Shopping in these malls is merely a secondary activity.

The central public space that the “urban street” concept tries to create through a linear type space is reworked in the malls that try to mimic “cultural institutions.” In these types of malls emphasis is on the civic spaces created that become culturally significant within the community. ““Just as cultural

⁶ Curry, Mason. “New Malls, Old Ideas.” *Metropolis*, Oct. 2008: 165.

⁷ Dokoupil, Tony. “Retail: Is the American Shopping Mall Dead?” *Newsweek*, 2008 Nov. 12.

institutions want to be commercially successful, so do commercial institutions want to be culturally successful,”⁸ says Daniel Libeskind who designed the Westside center in Bern, Switzerland. The project created a central space that feels like a museum in addition to programs such as a swimming center that offer community amenities and activities that do not require consumption. The siting of this project in particular bridged the mall to the nearby neighborhood across the highway in order to make the mall more integrated into the community.

While most malls have a center that allows for rest and relaxation from shopping, the park concept takes that space outdoors and in the case of the Meydan Shopping Center, that space extends to roof as well. The Meydan Shopping Center is located in a suburban but growing part of Istanbul, Turkey. This scheme compared to the proportion of retail versus public space of other malls, has a much greater amount of public space because of the green roof and the decision to invest in underground parking. “The different retail spaces are clustered together and parking is placed underground, liberating the ground entirely for a large urban square in the center of the scheme.”⁹ The concept brings back the original goal of the regional shopping mall to provide a public, civic space in a city built for and at the scale of the automobile. It is not only a destination for shopping but also a destination for leisure.

⁸ Curry, Mason. “New Malls, Old Ideas.” *Metropolis*, Oct. 2008: 165.

⁹ <http://www.f-o-a.net/#/projects/616> March 24, 2009

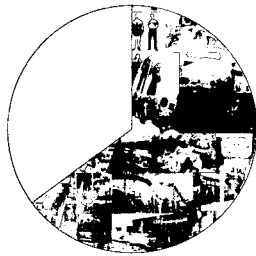
Reason for decline

Since the shopping mall's prime during the 80s, the mall has lost its appeal among consumers for cultural, economical, and geographical reasons and many of these structures now are deteriorated voids on the urban-suburban edge.

Culturally, the demographics have changed since the conception of the mall typology. The post-war nuclear suburban family with a surplus of leisure time to spend shopping has shifted to more split households with working mothers and less leisure time. Consumers have therefore shifted their methods of shopping to quicker one-stop shop formats such as big box stores or internet shopping.

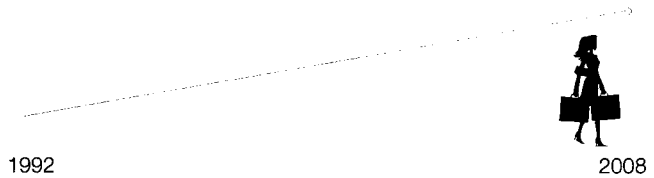
Economically, the United States has become a country of shoppers. Consumer spending in the United States is the driver of approximately 2/3 of all US economic activity (Figure 1) and over the last 16 years personal consumption has steadily increased (Figure 2). Dependence on consumer spending leaves the mall vulnerable to economic flux.

Geographically, a mall becomes extremely vulnerable to failing when a newer mall or retail center opens nearby. A common practice by some developers is planned obsolescence where the developer builds a newer competing retail center nearby purposely causing the older mall to close. The average life span for a mall is about 30 years often because of planned obsolescence (Figure 3).



Consumer spending is the driver of approximately 2/3 of all US economic activity.

FIGURE 1: Consumer Spending in the United States



Over the last 16 years personal consumption has steadily increased.

FIGURE 2: Personal Consumption

Grand Coastal Mall
2004-
Myrtle Beach, South Carolina

Myrtle Square Mall
1975-2005
Myrtle Beach, South Carolina

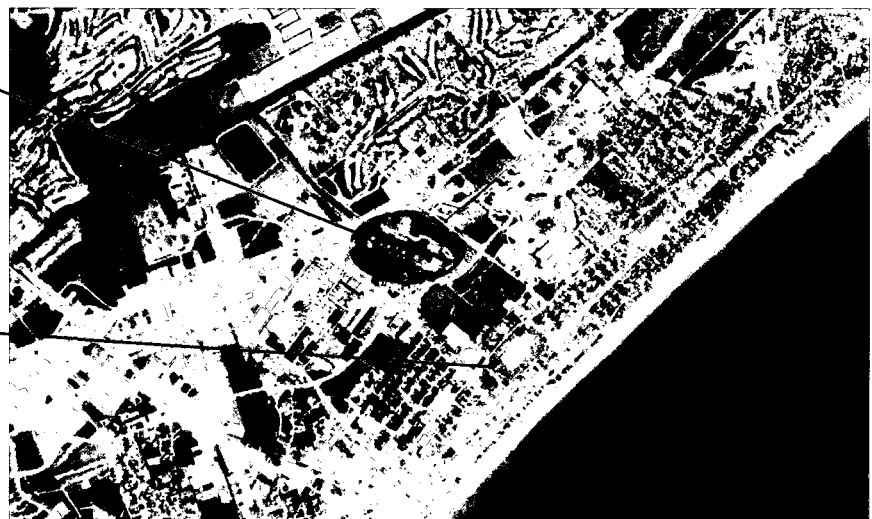


FIGURE 3: Planned Obsolescence in Myrtle Beach, South Carolina

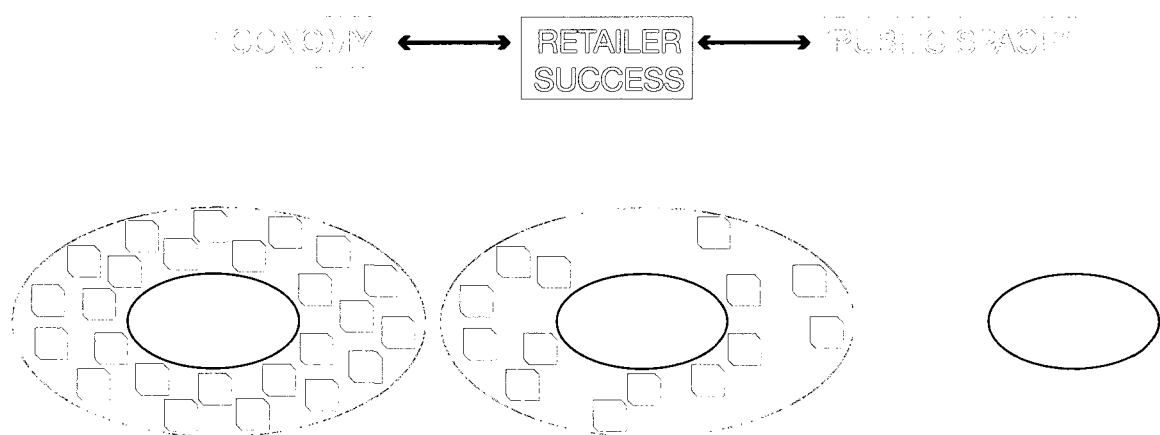


FIGURE 4: “Public Spaces” and the economy depend on retailer success

Thesis Proposal

This thesis proposes a methodology of mall reanimation that transforms the inherited concept of the mall as a space of consumption into the mall as a place of production. While having a global scope, this thesis uses the Northwest mall in Houston as a test ground. The particularities of the site [atmospheric, urban, and social] will be the conditions of site exploration.

When the economic crisis hit last year, it became clear that it wasn't just our economy that was dependent on retailer's success; our "public spaces" were also dependent. As retailers close, malls close, and the gathering spaces offered as an amenity for events and leisure closed as well. (Figure 4: "Public Spaces" and the economy depend on retailer success) The problem is the mall's monofunctional nature and isolation within the city that makes it susceptible to failure.

What if instead of the mall being this condition of brutally harsh box within a hot empty hardscape with no relation to the exterior, (Figure 5: Existing Northwest Mall) it is instead this condition of production and landscape. (Figure 6: Imagined Mall with new life)

This thesis transforms the existing Northwest mall structure from an isolated island that functions only as a consumer of goods, space, and energy to a

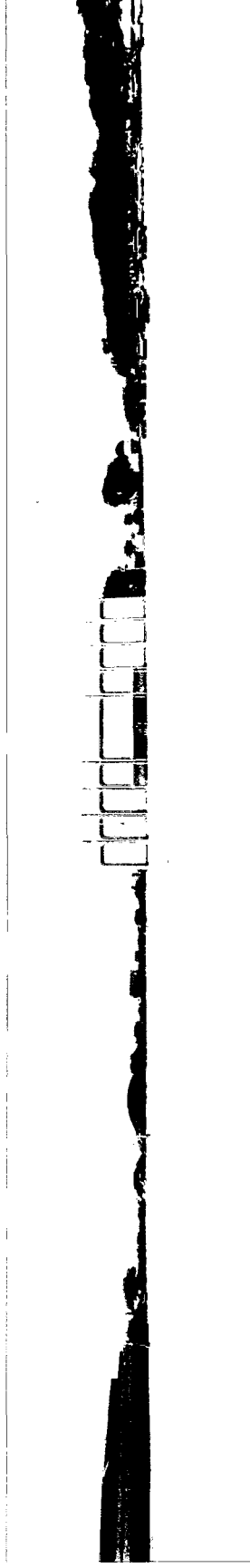


FIGURE 5: Existing Northwest Mall



FIGURE 6: Imagined Mall with new life

This thesis proposes a methodology of mall *reanimation* that transforms the inherited concept of the mall as a **space** of consumption into the mall as a **place** of production.

participant in the city through the production of goods, space, and energy.

There have been calls to reevaluate the mall typology since the early 1990s but in 2009, the economic crisis is making these calls imperative. This thesis uses the Northwest mall as a case study to reconceptualize the entire mall site as a field condition consisting of layers of programs and interactions. In order to create independence from consumer spending, the mall utilizes the land it inhabits with agriculture and water collection while extending social opportunities through the introduction of housing, shopping, and production.

Precedents of Mall Reuse

In 2001 the Los Angeles Forum for Architecture hosted a competition for deadmalls. The entrants were asked to first study why a particular mall failed and then propose a solution to either reuse the space for another purpose or reuse it for a different type of mall. The Deadmall competition looked into why many regional malls were failing and what some potential solutions could remedy those problems. In general there are four overarching approaches to aging malls: 1) Adapt the building for a new use, 2) Renovate and update building to the latest shopping experience trend, 3) Renovate to restore the land to a more natural state, or 4) Demolish the building and build new mall.

The option to adapt a mall into a new use could be as simple as Windsor Park mall in San Antonio or as elaborate as the proposal from Stoner Meek Architecture and Urban Design in the Deadmalls Competition. Windsor Park mall in San Antonio was sold to a developer once all the stores closed. The developer then converted the large space into a space to house servers for the company Rackspace. Stoner Meek Architecture and Urban Design on the other hand used influences of gardens and green spaces from 13th and 14th century malls in Europe to preserve an existing wetland on the site. The building would exhibit ecologically friendly vehicles in a showroom. Retail is secondary and independent from the garden.

Another alternative concept for aging malls is to renovate the existing mall into a successful retail experience. An example of this type is Mizner Park in Boca Roton, Florida where the architects took an existing dumbbell shaped mall and turned it into the latest retail trend, a lifestyle center. The central corridor became an open-air pedestrian street with stores on both sides as well as additional program: housing and office space. Parking is densified into garages. Cultural institutions are sometimes also added in this type of renovation. While this typology is predicted to have a longer life-span than 30 years because of its programmatic diversity and increased density, it is still susceptible to shifts in demographics, consumer preferences, and appearance of blight should it occur.

The last option and unfortunately the most common option is to demolish and build new once the mall becomes outdated and undesirable. In the example of Myrtle Square Mall in Myrtle Beach, South Carolina, mall owners built a newer mall less than a quarter of a mile away after not updating the existing mall in 20 years. This is “planned obsolescence.” (Figure 3) All the stores in Myrtle Square Mall moved to the new mall and demolition started about a year later. The plan is to build a “mixed-use” development on the former Myrtle Square Mall site.

The Test Site

The Northwest Mall in Houston has passed its 30 year lifecycle and is now looking for new life. This mall was built in 1967 on the edge of the city at 610 and 290. It last underwent renovations in 1990 but since 1992 has steadily lost customers and retailers. Right now both anchors have closed their stores. Other programs such as a clinic have opened in the mall but the mall still feels eerily vacant. It does have some promising aspects to it, which is why I chose this particular mall in Houston. The location at 610 and 290 makes the mall highly visible to commuters and just up the road from the Galleria.

(Figures 8-10)

The decision to keep the existing mall structure was based on the durability of the mall's materials to have a longer life span than 30 years in addition to the flexibility of the spaces and the structure itself. The ecological impact of demolition contributing to increases in waste and landfill size was also a contributing factor to keep the structure. Out of the 13 malls in Houston, 3 are currently failing (Figure 7). This project reconceptualizes a life for the mall structures beyond simply shopping as a means to activate and prevent further waste and destruction.



Out of 13 malls in Houston, 3 are under-performing or failing



FIGURE 7: Failing Malls in Houston



FIGURE 8: Northwest Mall Regional Aerial



FIGURE 9: Northwest Mall District Aerial

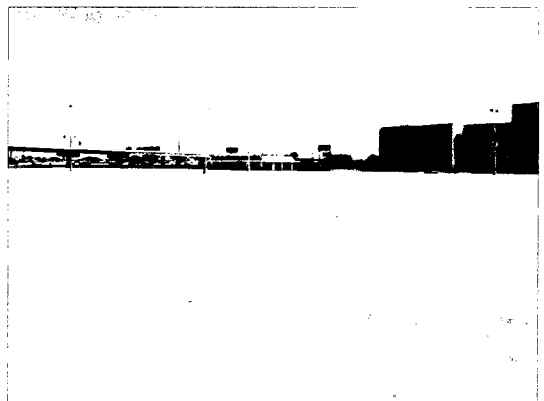


FIGURE 10: Northwest Mall Local Photograph

Site Conditions

The mall's location at the intersection of 290 and 610, once the edge of the city, is now a prime visible location and just up the road from the very successful Galleria Mall. The site consists of a harsh brutal concrete expanse of parking with a windowless concrete tilt up structure in the middle. The sea of parking and the building are all part of a formulaic design of a mall.

This thesis breaks down the site into five conditions to analyze: Parking, circulation, skin, store organization, and site adjacencies.

Parking: Excess parking was usually designed to give the illusion that it is always easy to find a place to park. This mall has 19 out of 50 acres of excess parking space. (Figure 11)

Circulation: The circulation was designed to be a pedestrian friendly urban environment and is therefore is highly organized internally along an axis while externally the circulation is disregarded. (Figure 12)

Skin: The skin reinforces the mall's interiority through its concrete blank box with no reference to exterior adjacencies. (Figure 13)

Store Organization: The stores are organized so that the department stores “anchor” the mall on each end providing the attraction for people to walk between the two department stores with a food court and other amenities in the center. At the Northwest mall, both anchors have closed and are leading to more closings among the smaller retailers. (Figure 14)

Site Adjacencies: The site is bounded by a major highway intersection on one side, a basketball/football stadium on another side, and restaurants, housing, and a railroad track along the other sides. Unfortunately this highway adjacency leads to issues of noise and air pollution for the site. But the stadium adjacency leads to potential consumer/producer linkage. (Figure 15)

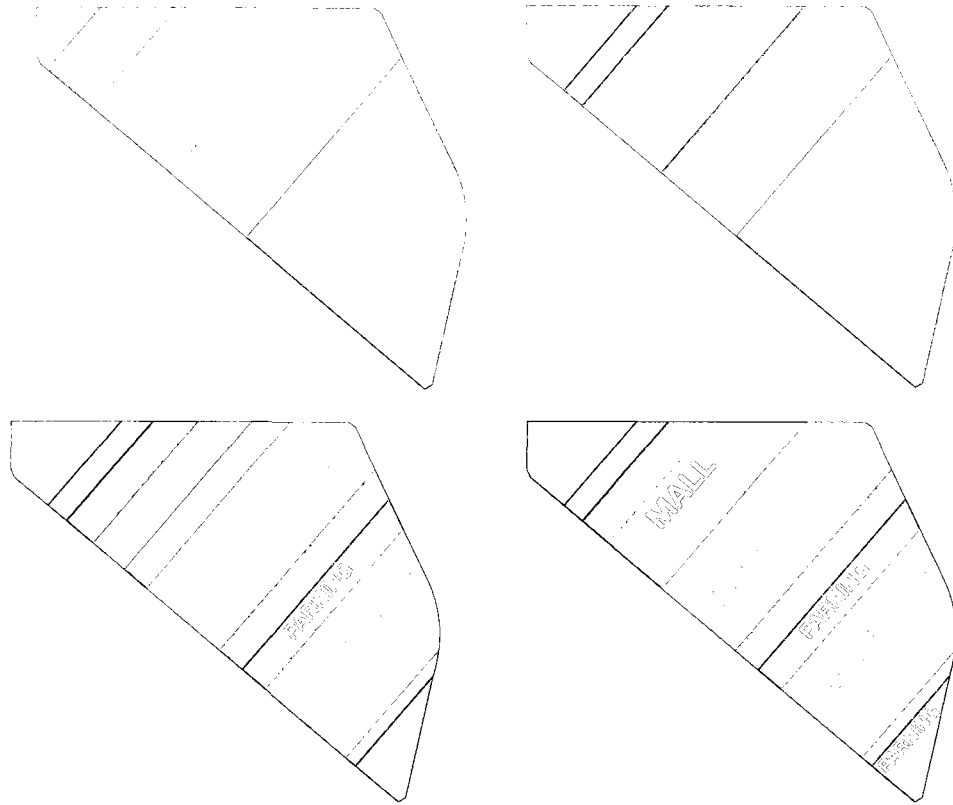


FIGURE 11: Parking

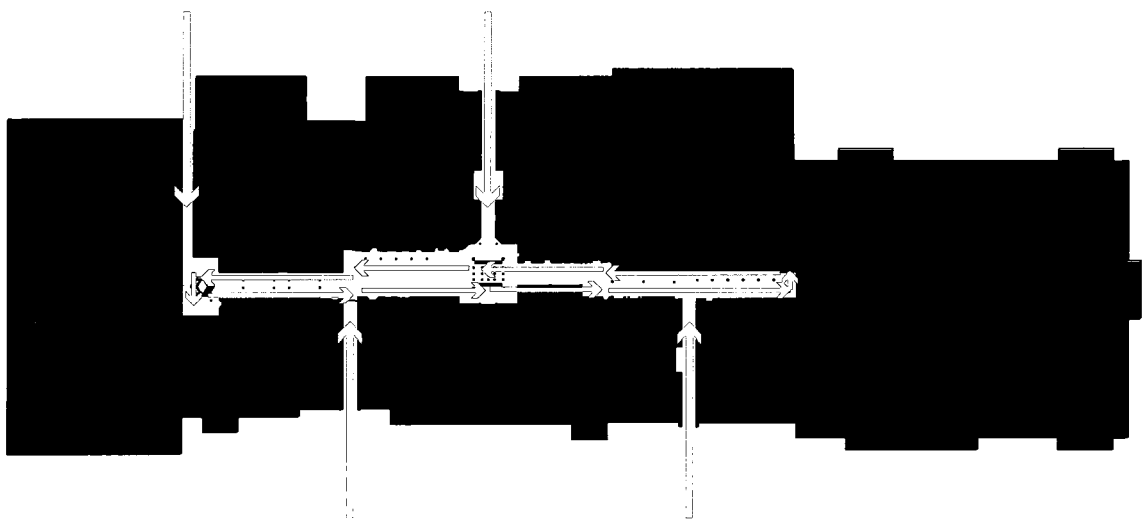


FIGURE 12: Circulation

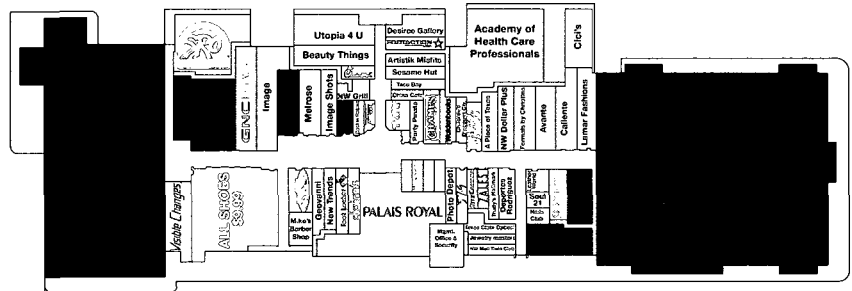


FIGURE 14: Store Organization

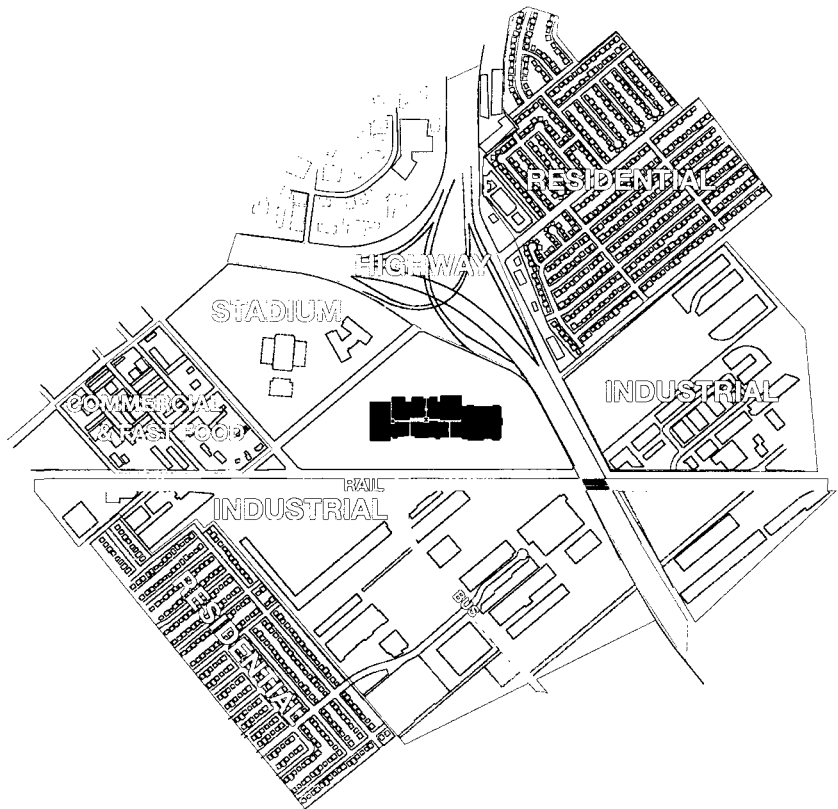


FIGURE 15: Site Adjacencies

FIGURE 13: Skin

Programmatic conditions

To turn this existing space of consumption into a place of production, there are three main components of the newly introduced production program: Plants, Water, and Care-Takers.

Plants: After looking at the existing stores in the mall, which are categorized into the following categories: Apparel, Bath, Cards, Accessories, Housewares, Jewelry, Shoes, Restaurants, Specialty, and Sporting Equipment. (Figure 16)

The regenerated mall produces the raw goods that can be distributed, processed and sold at other area retailers. Cotton can produce t-shirts, towels, bedding, & stationary. Soybeans produce soaps, milk, & tofu. Cassava, a hardy crop that produces tapioca and specialty chips. The sunflower produces snacks and oil. Small plots of land can be rented for vegetable gardens to then sell the produce at an onsite farmers market.

The trees planted on the site act as a tree farm, reducing the cost of trees in the city since most farms that grow the trees are located outside the city adding the cost of transportation to the cost of the tree.

Water: Then to water all these trees and plants, a new system is needed to collect water. In Houston you can collect an average of 24,000 gallons of water

per year per 1000 SF. Collecting rainwater from approximately half the site would equal 16 million gallons of water per year. That could fill over 60 million water bottles or 24 Olympic-sized pools or water over 33,000 trees for a year.

Of that 16 million gallons, 5 ½ million would be needed for irrigation, 8 million could be bottled and distributed, and 2 ½ million gal/year could be used for leisure pools. (Figure 17)

Care-Takers: To care for the growth of the plants, housing would be offered to workers as a cooperative living typology. (Figure 18)

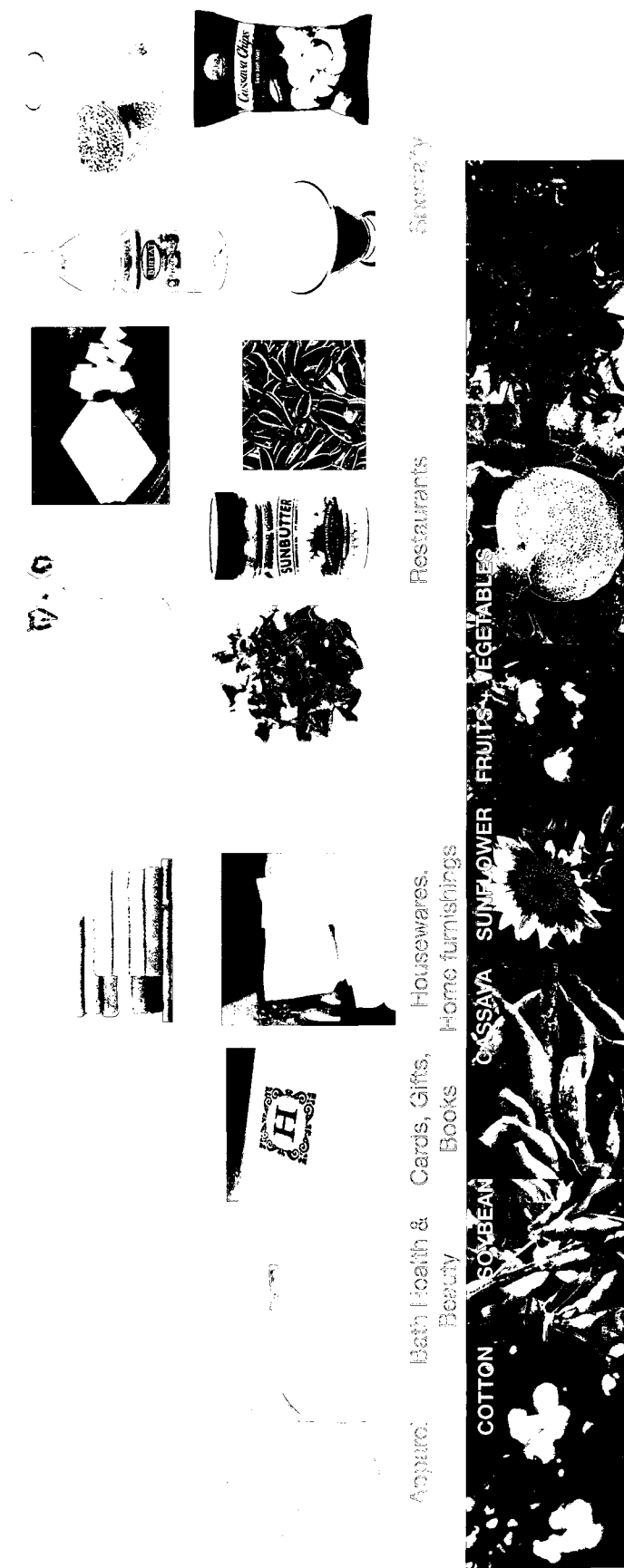
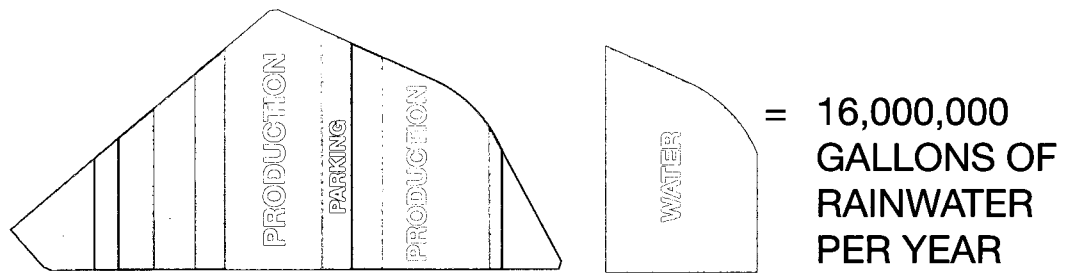
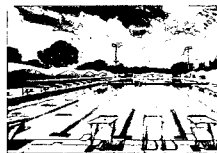


FIGURE 16: Programmatic Conditions: Plants



= 60,560,000 BOTTLES OF WATER



= 24 OLYMPIC SIZED SWIMMING POOLS



= 33,333 TREES WATERED FOR A YEAR

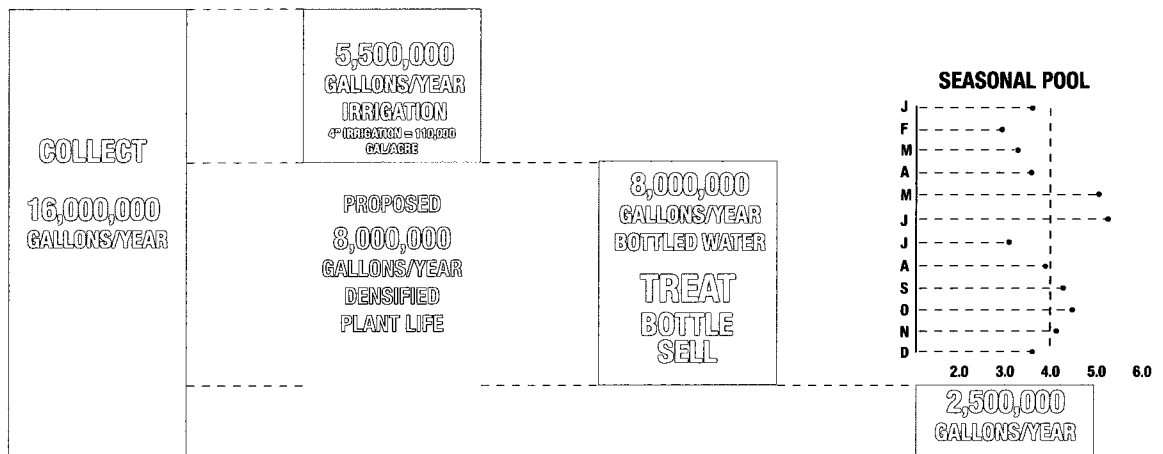


FIGURE 17: Programmatic Conditions: Water

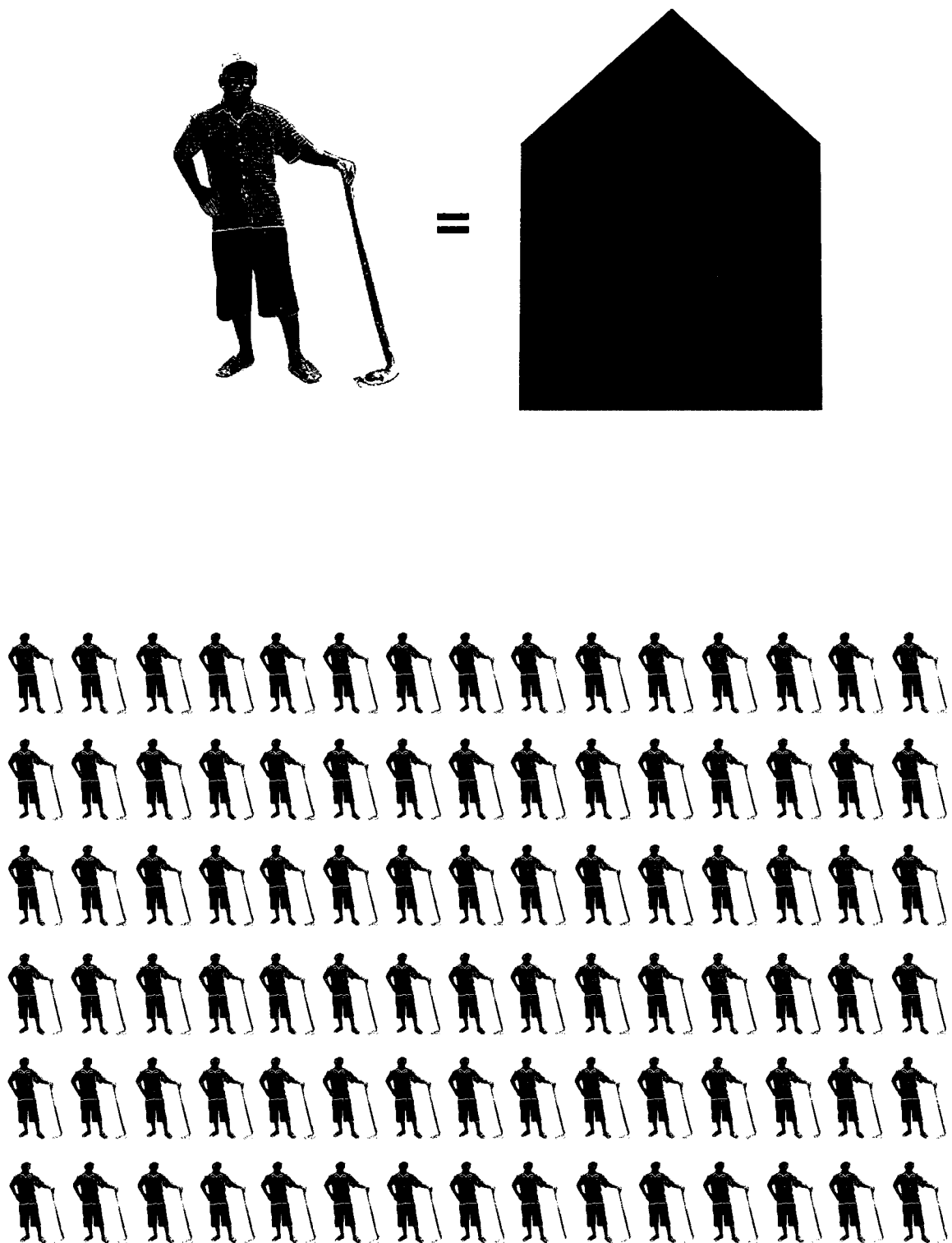


FIGURE 18: Programmatic Conditions: Care Takers

Strategies of Implementation

The intention of the thesis is to create a manual for mall regeneration through procedures that can be performed in any order. In the beginning of this process the Northwest Mall is documented as a “Blank Box” (Figures 19-20). After the procedures, the “Blank Box” is transformed into a lively new “Produci-Consumer” (Figures 21-22).

Taking as a starting point the infrastructural nature of the mall infrastructural space: the parking lot, this thesis proposes five procedures based on notions of intensification and layering: 1.the car garden 2.site energy hunter 3. Building reoccupation 4. Site energy gatherers and 5. modular inhabitations

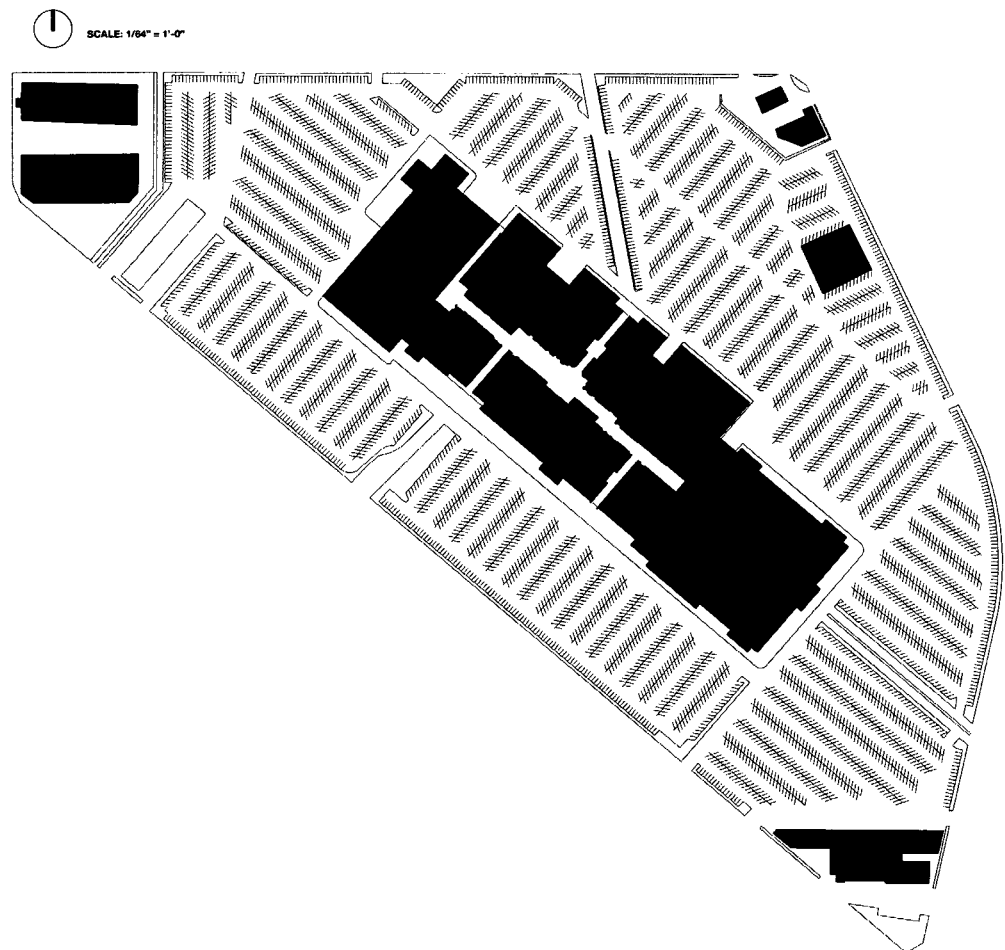
The following are five procedures for mall regeneration. Again, each procedure is a process and the procedures can be executed in any order.

EXISTING MALL
The Blank Box

NORTHWEST MALL IN HOUSTON, TEXAS
AT 610 AND 290

BUILT IN 1967

SITE IS APPROXIMATELY 50 ACRES
REGIONAL SCALE MALL:
612,000 SQUARE FEET OF MALL SPACE
1,307,640 SQUARE FEET OF PARKING



CONSUMPTION

PUBLIC

FIGURE 19: The Blank Box: Plan

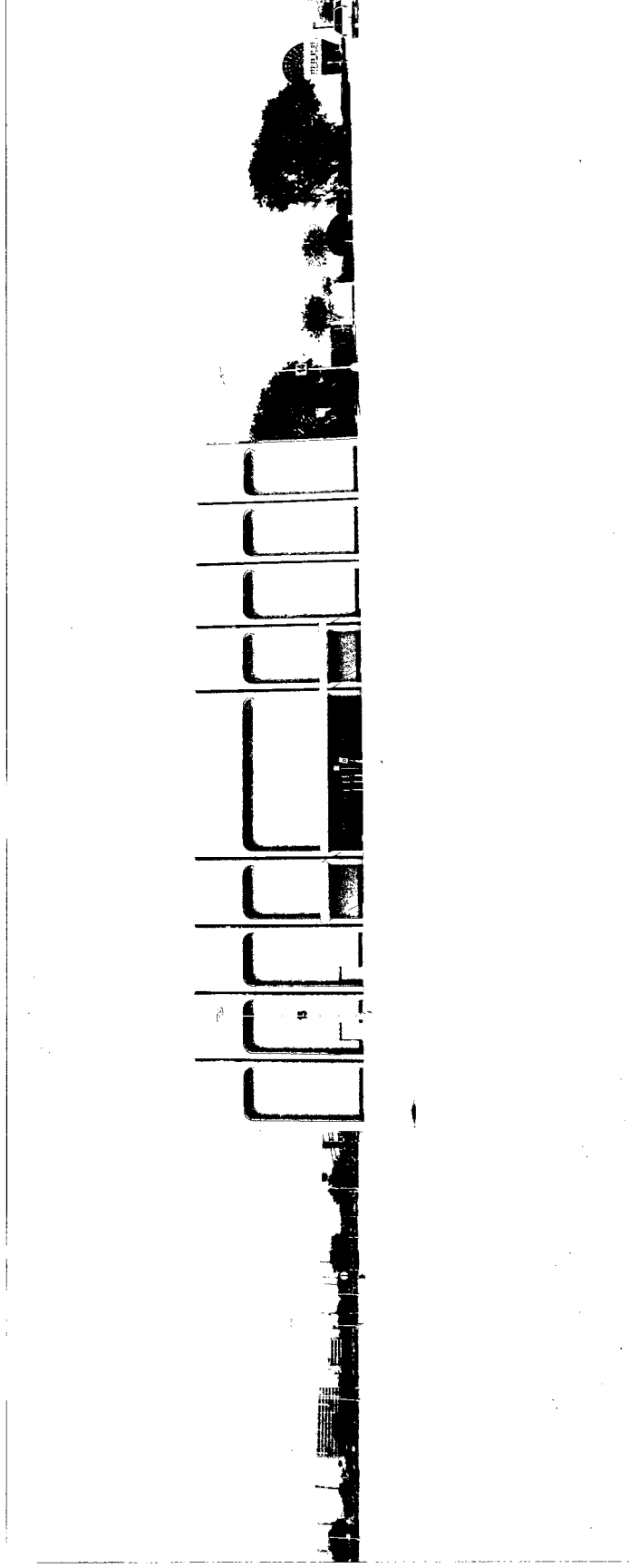


FIGURE 20: The Blank Box: Image

The brutalist concrete structure of the former JC Penneys lies vacant along with the seemingly infinite expanse of parking.

PROPOSED MALL

The Producers-Consumer

NORTHWEST MALL IN HOUSTON, TEXAS
AT 610 AND 290

REGENERATION BEGINS IN 2010

SITE INCLUDES:

1,550,000 SF OF CROPS
636,000 SF OF WATER COLLECTION
128,500 SF OF HOUSING
85,600 SF OF RENTABLE GARDENS

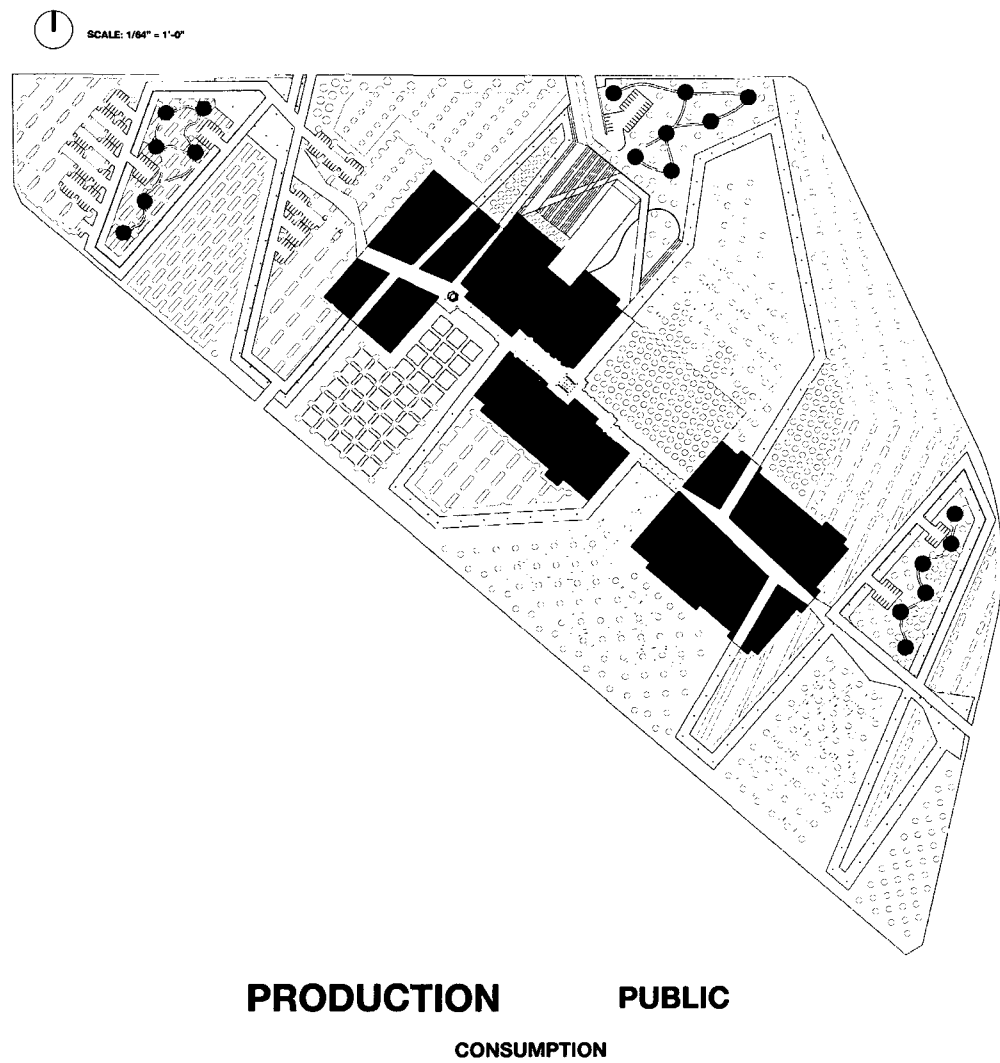


FIGURE 21: The Producers-Consumer: Plan

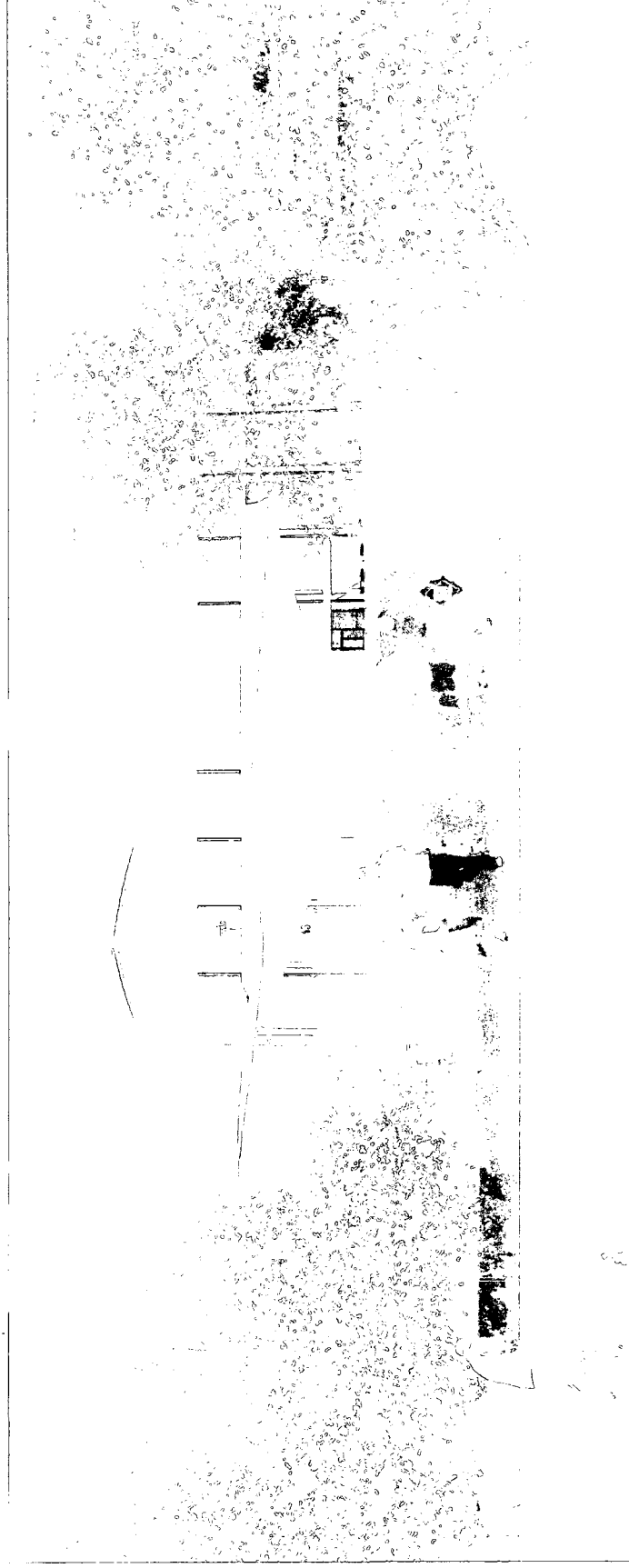


FIGURE 22: The Produci-Consumer: Image

A PLACE of production takes over the vacant JC Penneys turning the mall into a place for leisure without consumption. This mall grows the materials to make products sold in other malls. It harvests rainwater to support the growth of crops, and it provides a place to live for all who work at the new mall.

A. *The Car Garden*: Starting with the dimension of the parking spot 9'x18' I started looking at how these crops fit within this dimension. Cotton. Soybeans. Cassava. Sunflowers. And Trees. The trees need about 40'-50' spacing so they are placed every 6-7 parking spaces. The crops are organized between the trees with parking scattered and surrounded by crops and trees. The process to create the car garden involves removing the existing concrete paving and installing an irrigation system, and then adding new soil to plant crops and trees. The crops are arranged in need-based zones, such as sunlight or hardiness. Certain crops such as cotton and soybeans can be intercropped. (Figures 23-25)

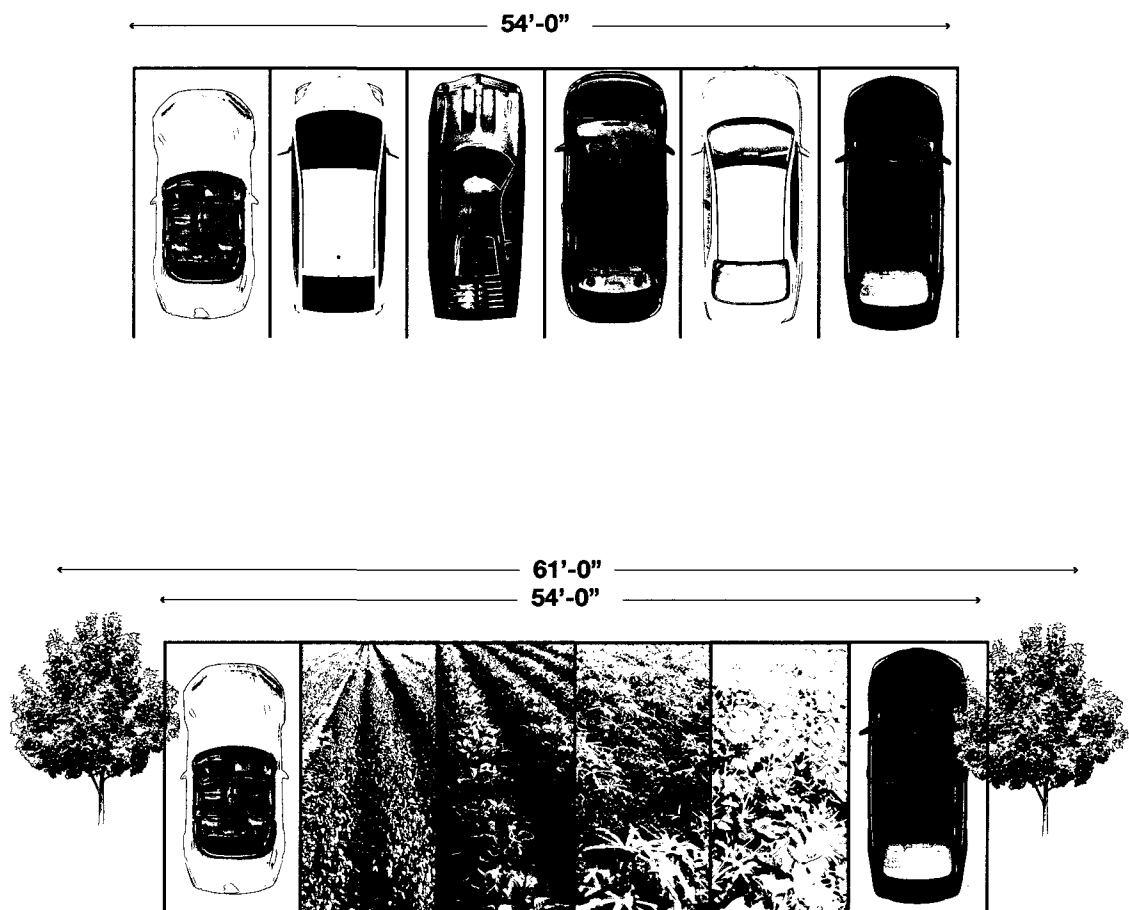


FIGURE 23: The Car Garden: Parking Dimensions

PROCEDURE ONE

The Car Garden

WHERE: PARKING AREA

WHAT: REMOVE CONCRETE
INSTALL IRRIGATION
ADD SOIL
PLANT CROPS + TREES

HOW: PARKING ACCUPUNCTURE

WHY: TRANSFORM EXCESS INTO PRODUCTION

SPACE OF CONSUMPTION

PLACE OF PRODUCTION

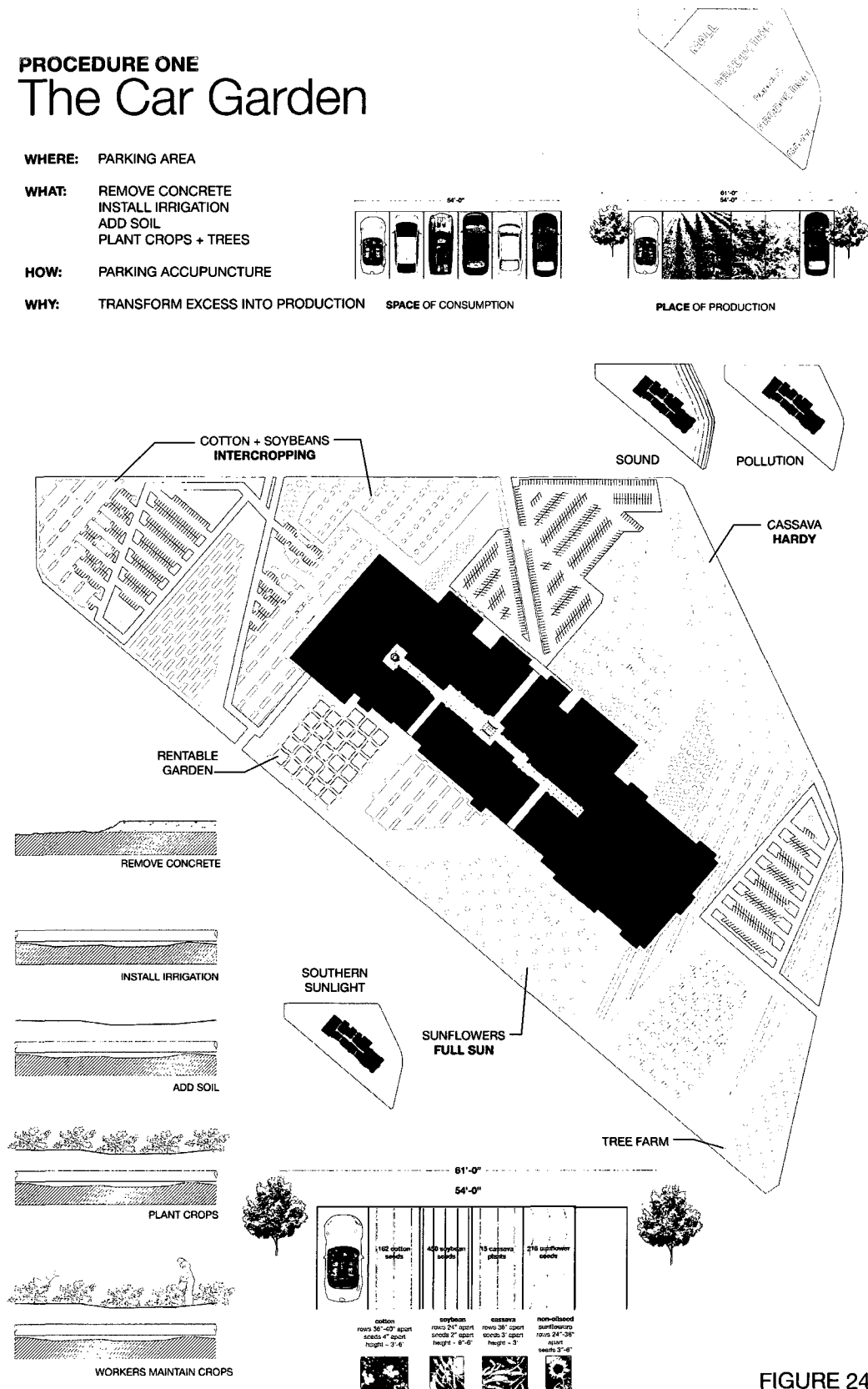


FIGURE 24



FIGURE 25: The Car Garden: Rendering

One procedure for mall regeneration is the transformation of the parking space into a space to grow crops. The result is a landscape of agriculture with parking scattered in between the crops.

B. *The Site Energy Hunter*: This is the water collection system that also acts as the organizing structure for the site. It begins with the entry points of the mall and extends outwards towards the site's perimeter. The result is a winding path with an axis that cuts through the center of the mall. It defines the infill crops and the site zones. Designed to collect water, the system is a series of funnel shaped structures connected by an undulating piece with small perforations at the top for light. It is a shading device, water collector and site organizer. The water collected goes into an underground irrigation system. (Figures 26-28)

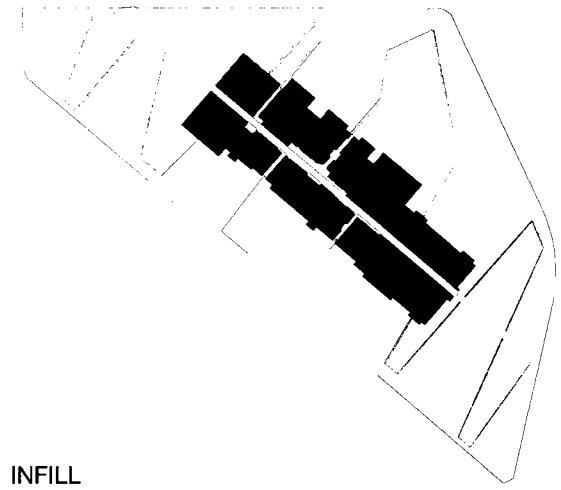
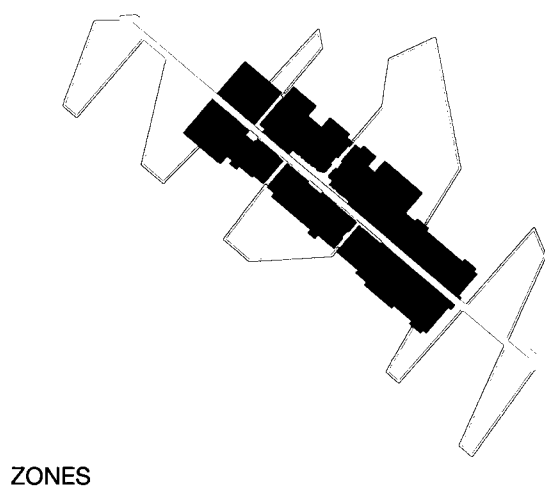
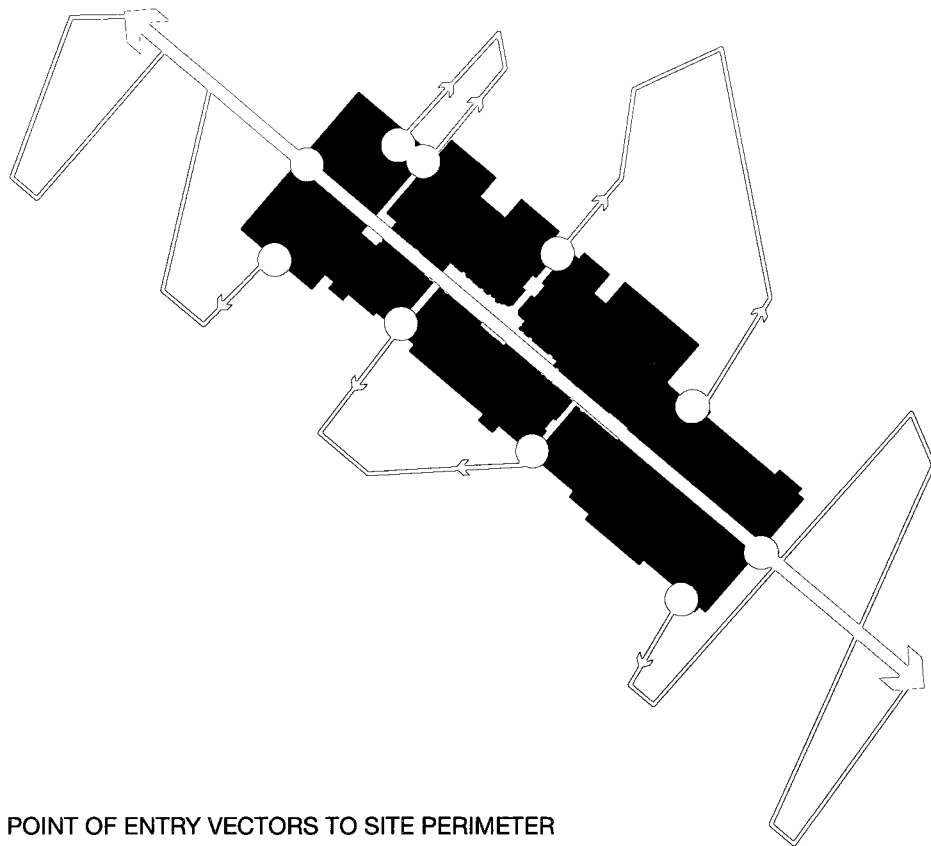
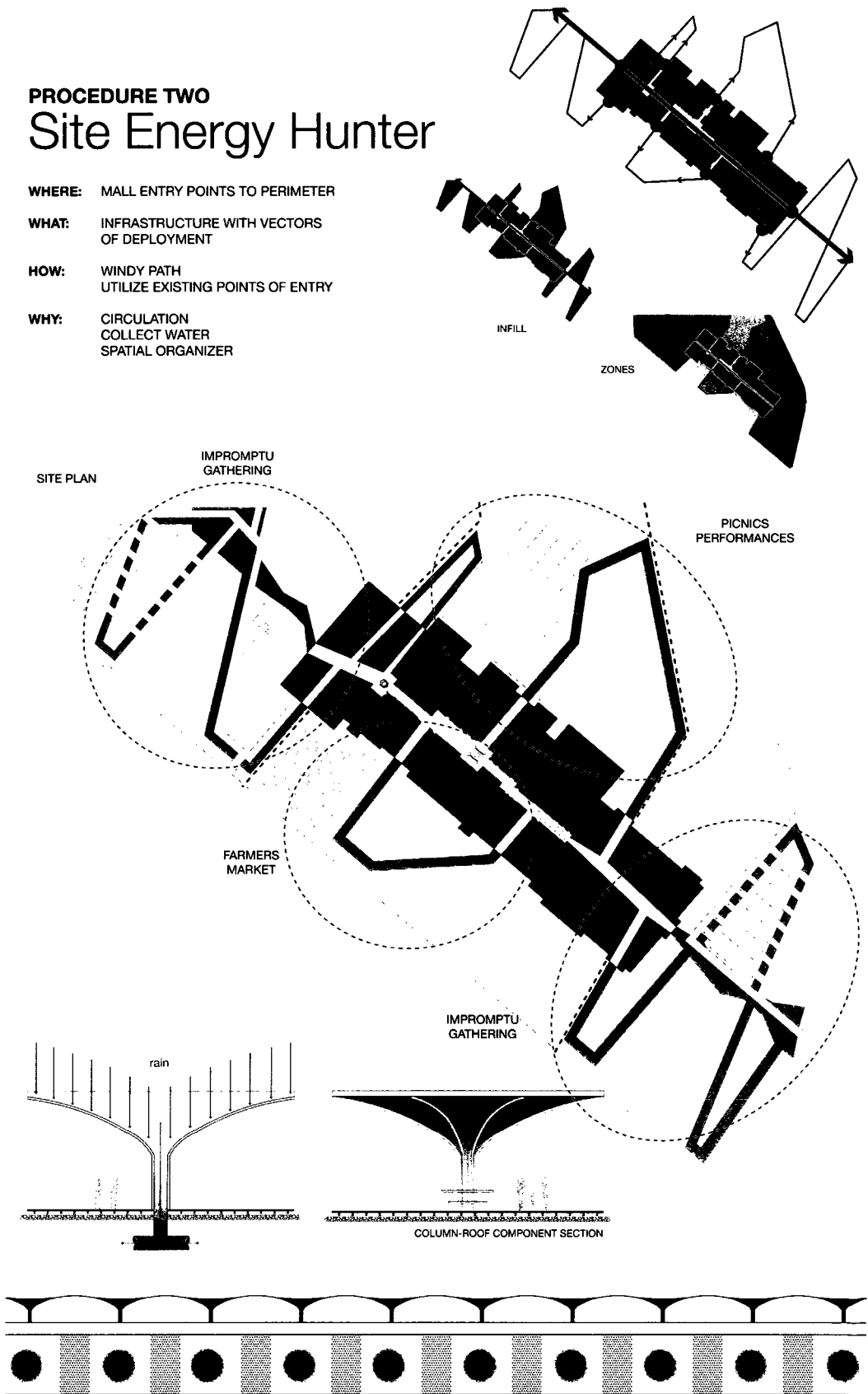


FIGURE 26: Site Energy Hunter

PROCEDURE TWO

Site Energy Hunter

- WHERE:** MALL ENTRY POINTS TO PERIMETER
- WHAT:** INFRASTRUCTURE WITH VECTORS OF DEPLOYMENT
- HOW:** WINDY PATH
UTILIZE EXISTING POINTS OF ENTRY
- WHY:** CIRCULATION
COLLECT WATER
SPATIAL ORGANIZER



ROOF PLAN
FIGURE 27

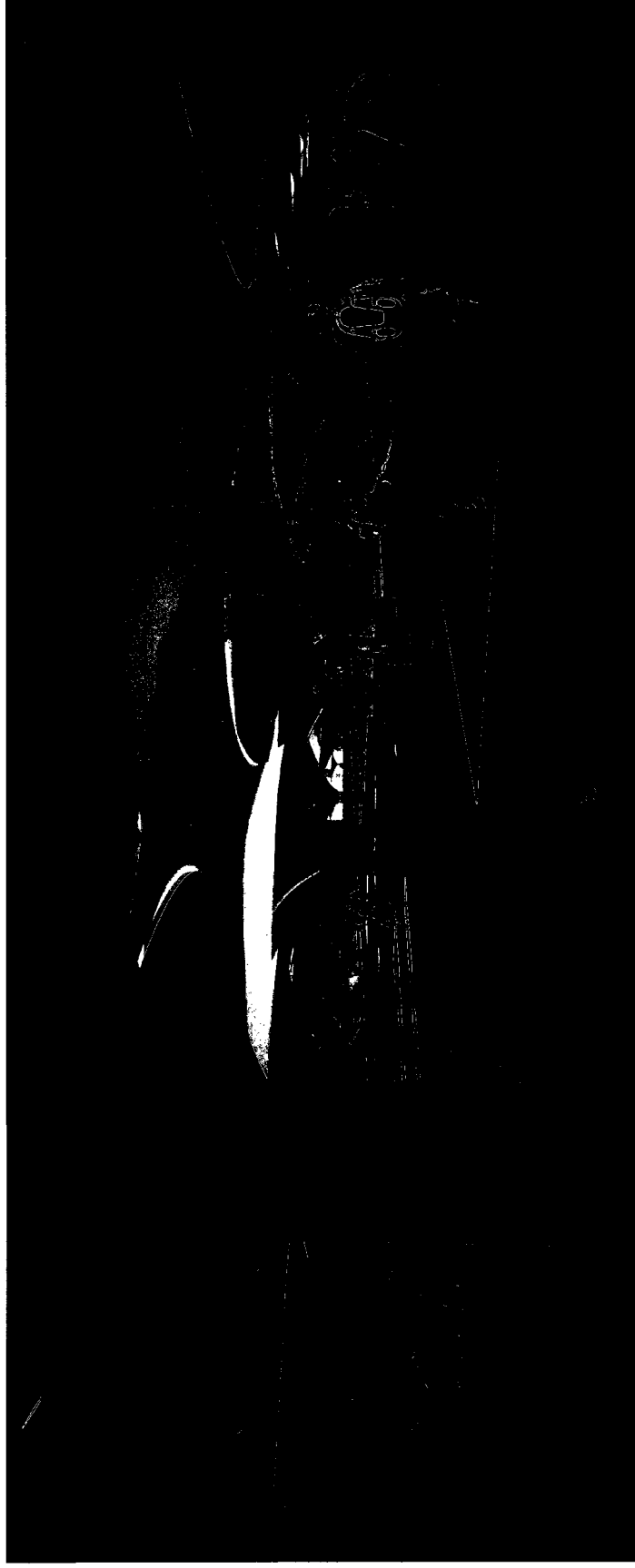
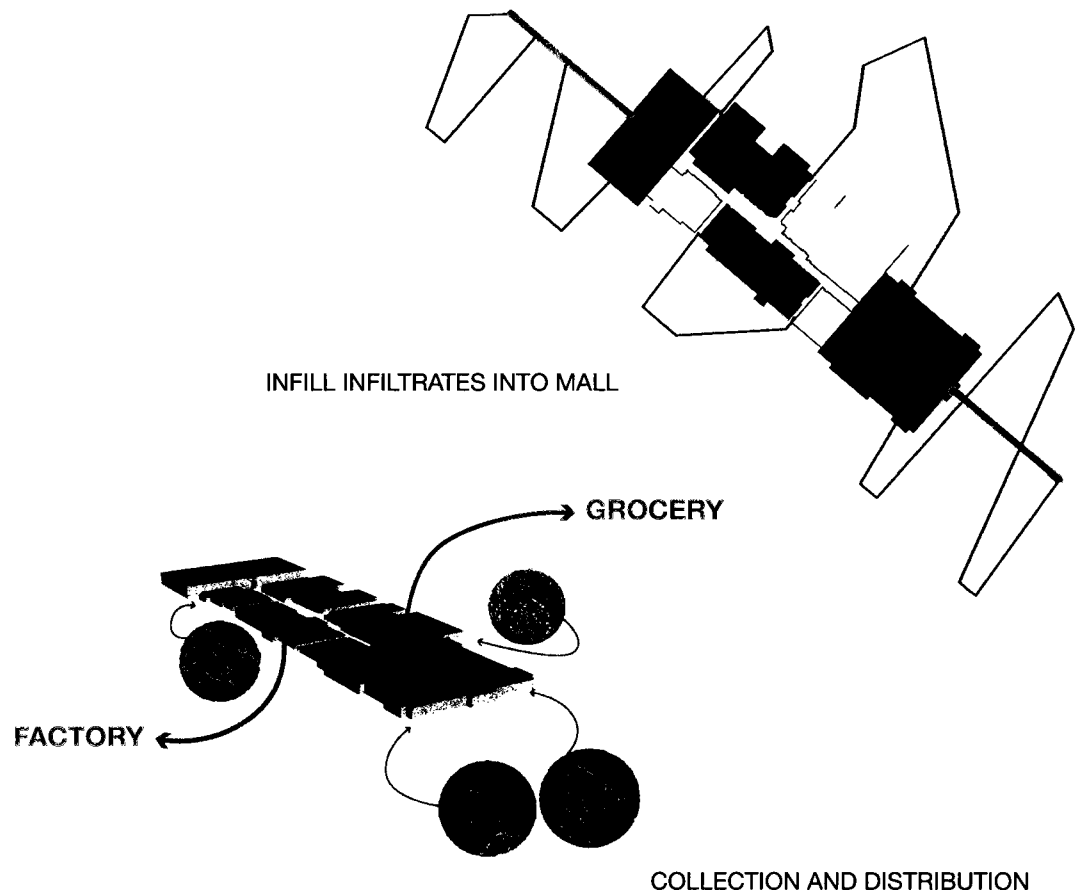


FIGURE 28: Site Energy Hunter: Rendering

A series of funnel type structures create a shaded pathway through the site while collecting water to be used by the crops or bottled. The funnel structures are connected by an undulating surface perforated to allow for some light penetration.

C. *Building Reoccupation:* The mall building transforms into a production engine. The crop infill penetrates the mall's concrete skin breaking the monotony of both the interior and exterior. The department stores still function as attractors. They are now concentrations of production by being either the center for water treatment and bottling or the center for hydroponic farming. The sunflowers, trees, gardens all enter into the mall once the skin is removed. The former Macy's turn's into a water collection and treatment space and the former JC Penney's turns into a hydroponic farming center. (Figures 29-31)



DEPARTMENT STORE
PRODUCTION CONCENTRATIONS

FIGURE 29: Building Reoccupation

PROCEDURE THREE

Building Reoccupation

- WHERE:** SMALL MALL STORES INTERIOR
EXTERIOR SKIN
DEPARTMENT STORES
- WHAT:** HYDROPONIC FARMING
BOTTLE WATER
PRODUCTION STORAGE
FIELD FARMING
- HOW:** OVERLAPPING ZONE
- WHY:** TRANSFORM MALL TO PLACE OF DISTRIBUTION
AND ENGINE OF PRODUCTION

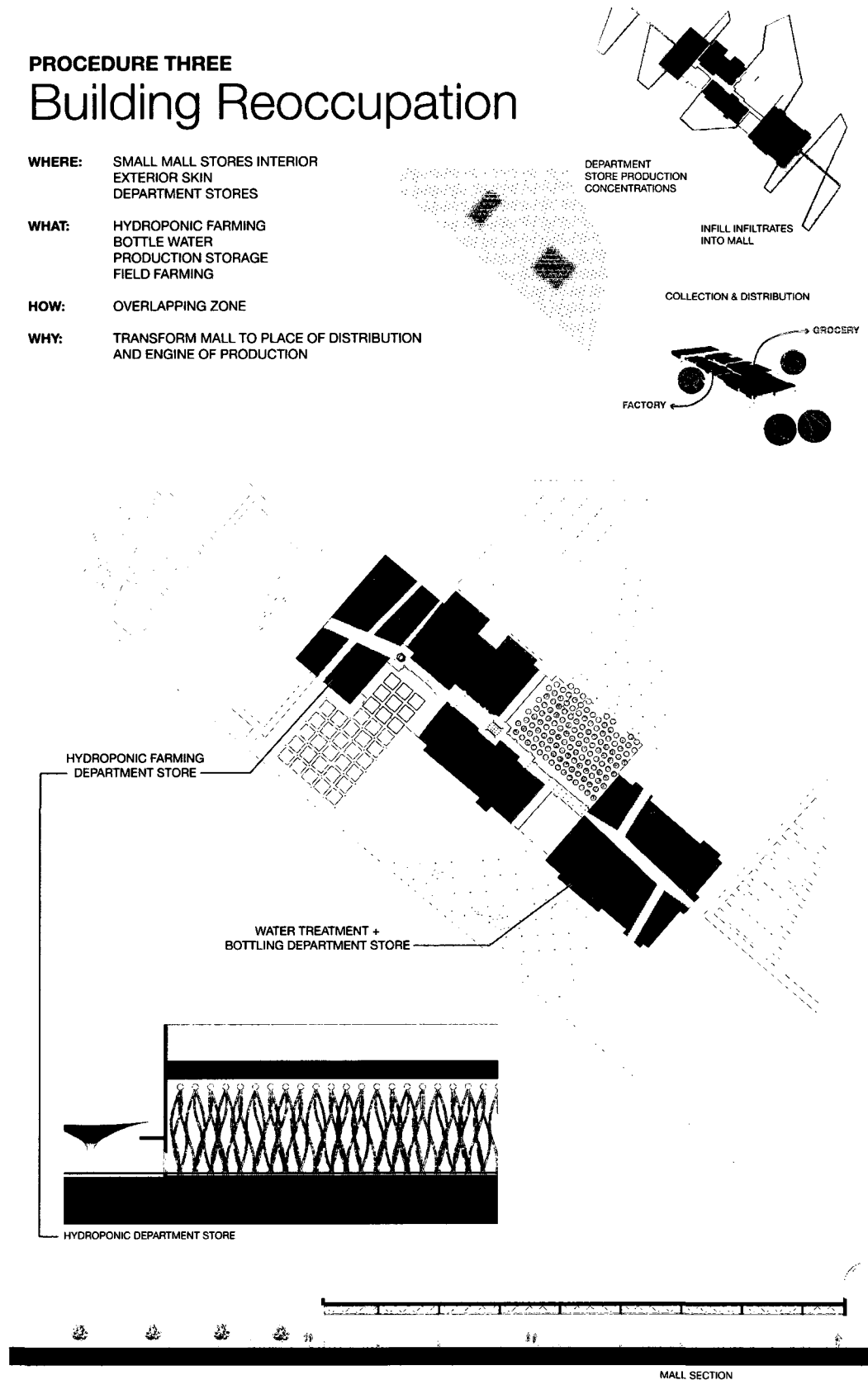


FIGURE 30

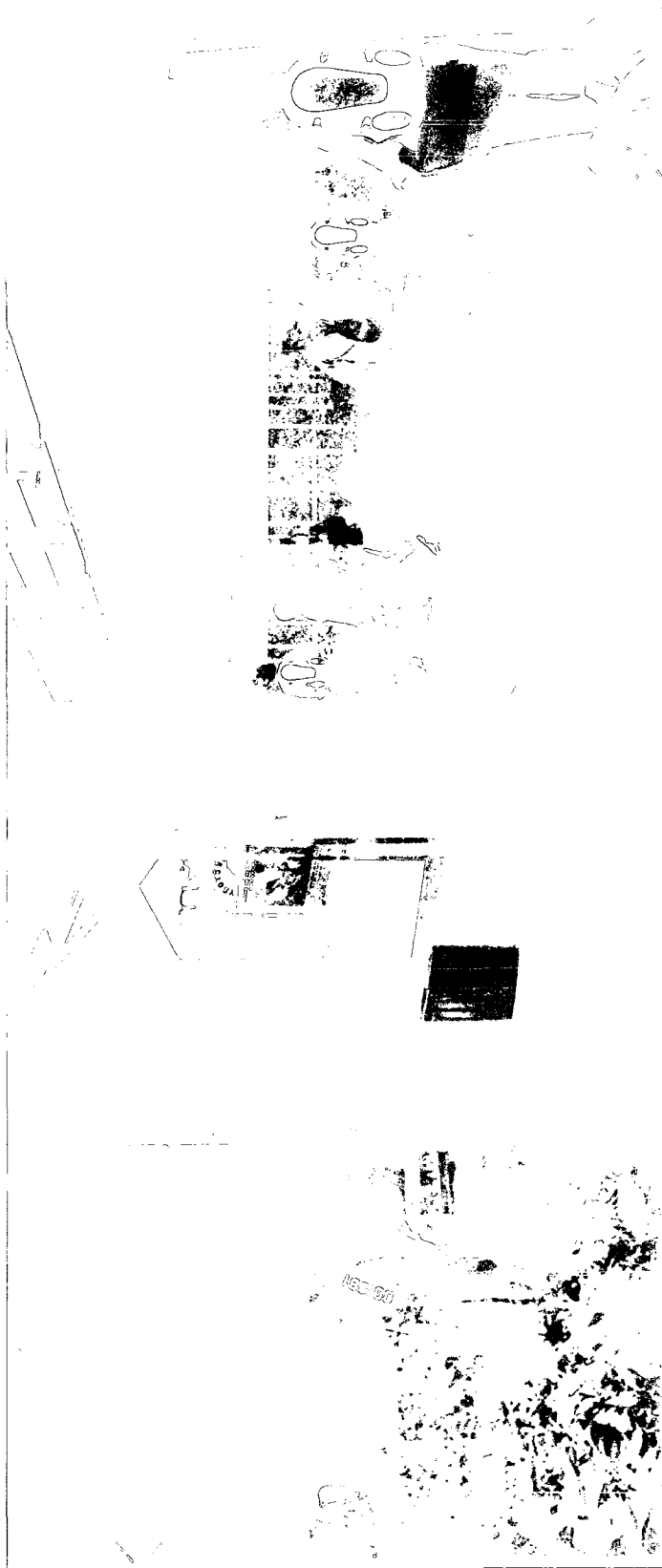


FIGURE 31: Building Reoccupation: Rendering

The mall interior is transformed into a center for production. The agriculture from the parking lot infiltrates into the building at points where the exterior skin is removed. The existing circulation path is preserved and the rest of the mall becomes supportive space for the production of the site.

D. *The Site Energy Gather*: This is a people gatherer and excess water gatherer. Sited based on the stadium adjacency, this leisure magnet attracts producer/consumers and distributes them throughout the site. This is a space for performances that typically happen at malls, picnics, play areas for kids. The space also is for excess water collection, creating pools in the summer months during the heaviest rain months. (Figures 32-34)

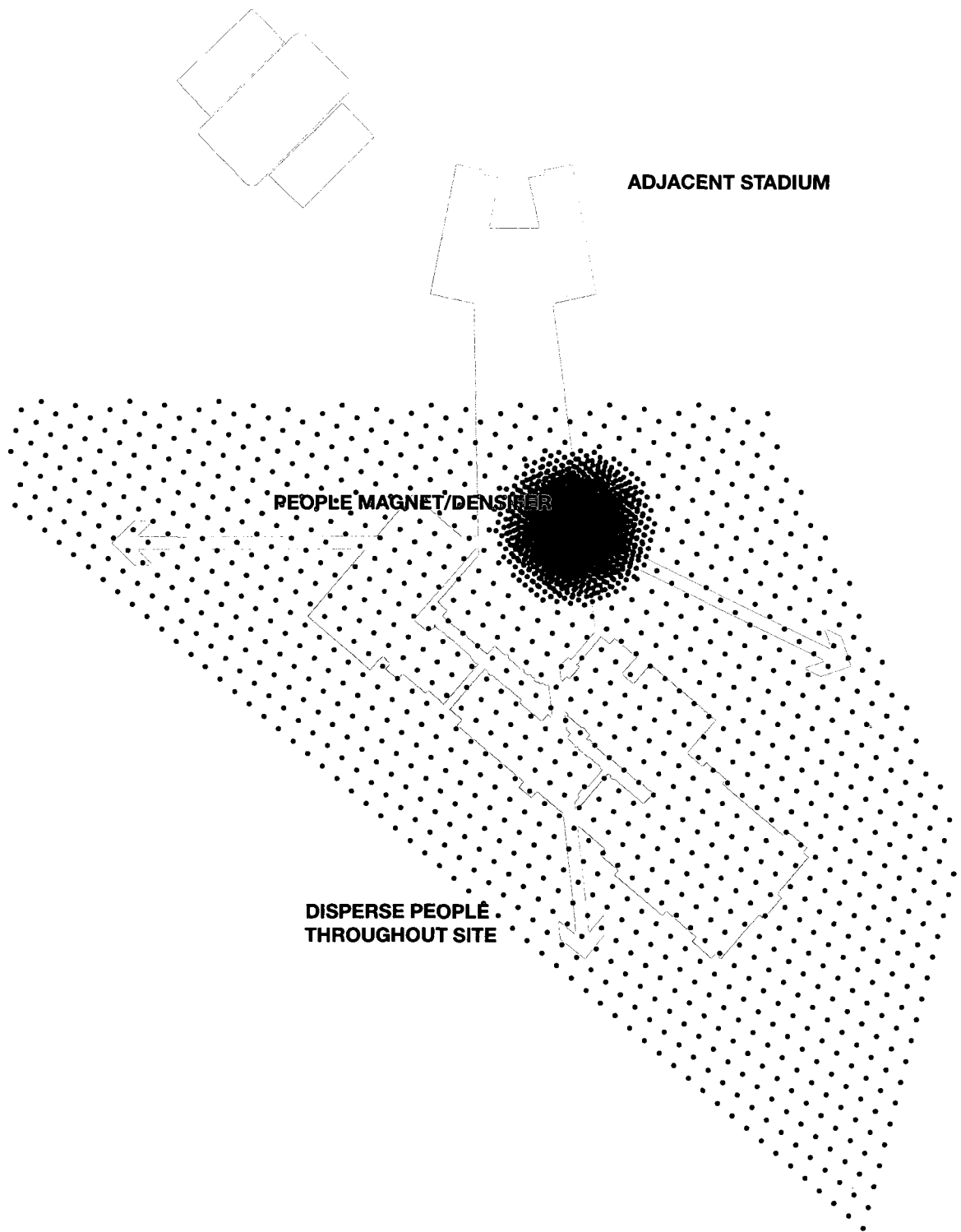


FIGURE 32: Site Energy Gatherer

PROCEDURE FOUR

Site Energy Gatherer

ADJACENT STADIUM

- WHERE:** EXISTING MALL ENTRY
ADJACENT TO NEIGHBORHOOD MAGNET
- WHAT:** EVENT SPACE
COLLECT EXCESS WATER
- HOW:** POINT OF INTENSITY
- WHY:** ATTRACT VISITORS
INCREASE EXISTING MALL LEISURE SPACE

PEOPLE MAGNET/DENSIFIER

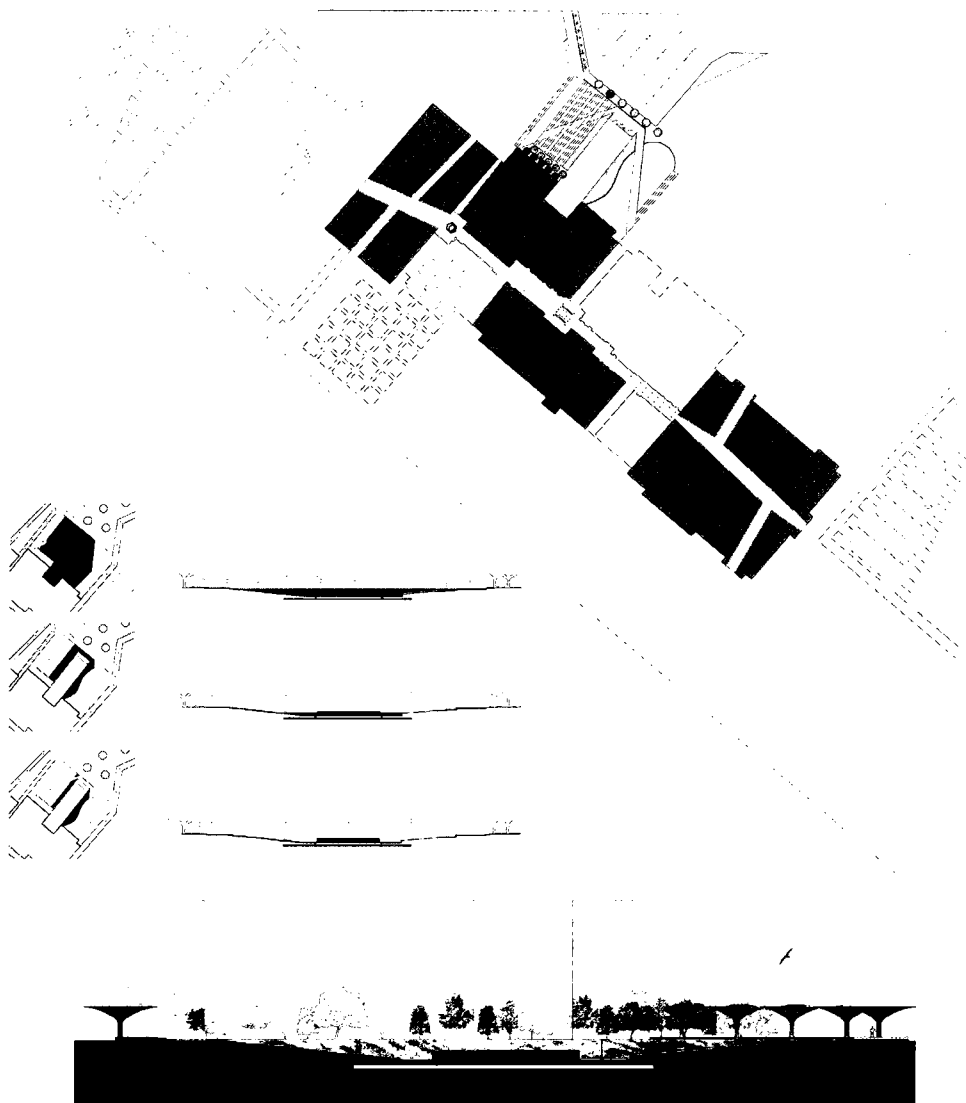


FIGURE 33

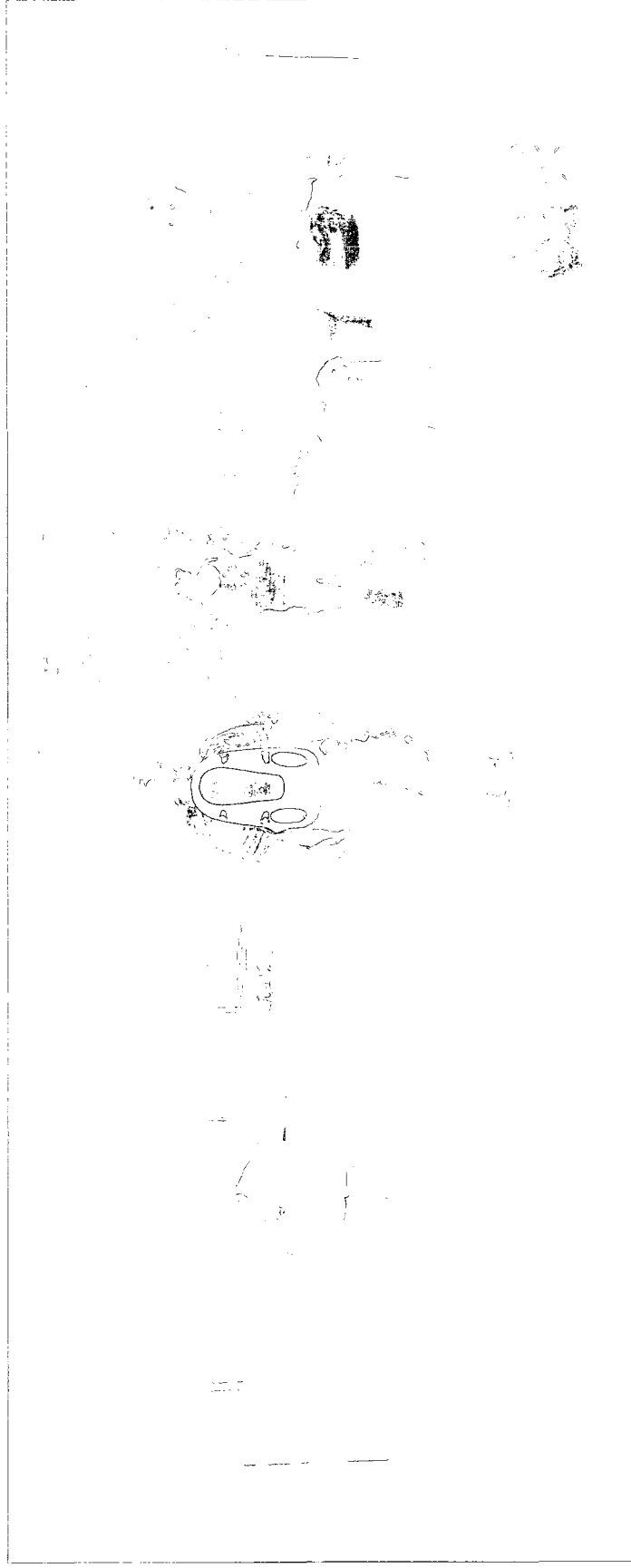


FIGURE 34: Site Energy Gatherer: Rendering

The primary leisure space for the mall moves outside where the space doubles as a reservoir for excess water collected. The space is intended to be used for outdoor performances, swimming, picnicking, or lounging.

E. *Modular Inhabitations*: clusters of housing towers are distributed in three separate zones on the site. Each zone has a different purpose and atmosphere. The cluster near the highway is designed to filter air. The cluster near the stadium and highway is designed to buffer sound and the cluster farthest away from the stadium and highway is designed to act like a private garden. Each tower consists of a skin of hydroponically grown plants, on a weave of pipes with water circulating. Inside is the enclosing glazing and then the core. The floor plates are the same oval shape but shifted slightly as they stack to allow for more air circulation and stairs access to the plants. The core includes, the restroom, kitchen, elevator, and compost chute that goes to the first floor to be then distributed on the site. The vertical pipes on the skin take the water that is collected on the roof and distributes the water into the horizontal pipes. (Figures 35-38)

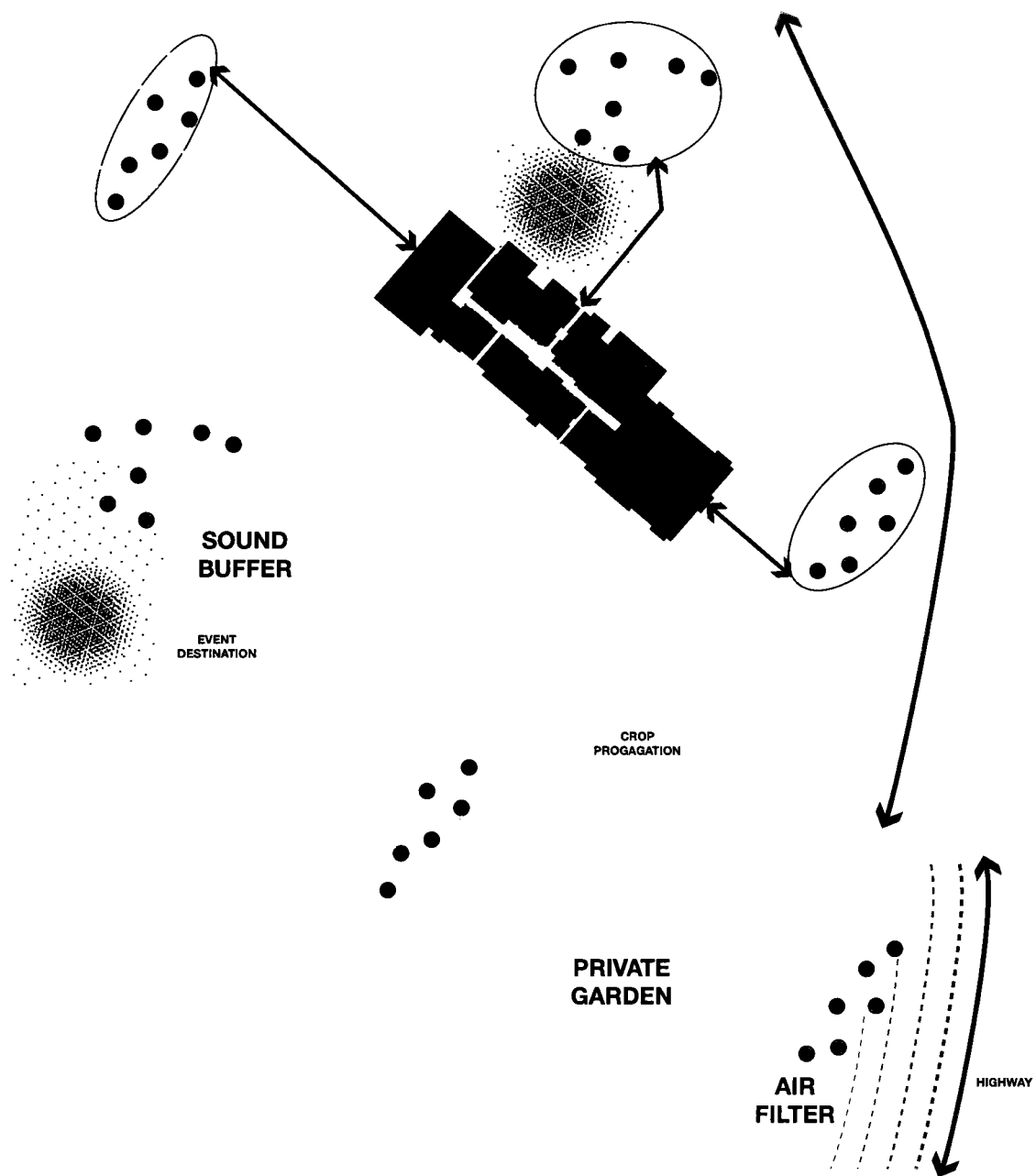
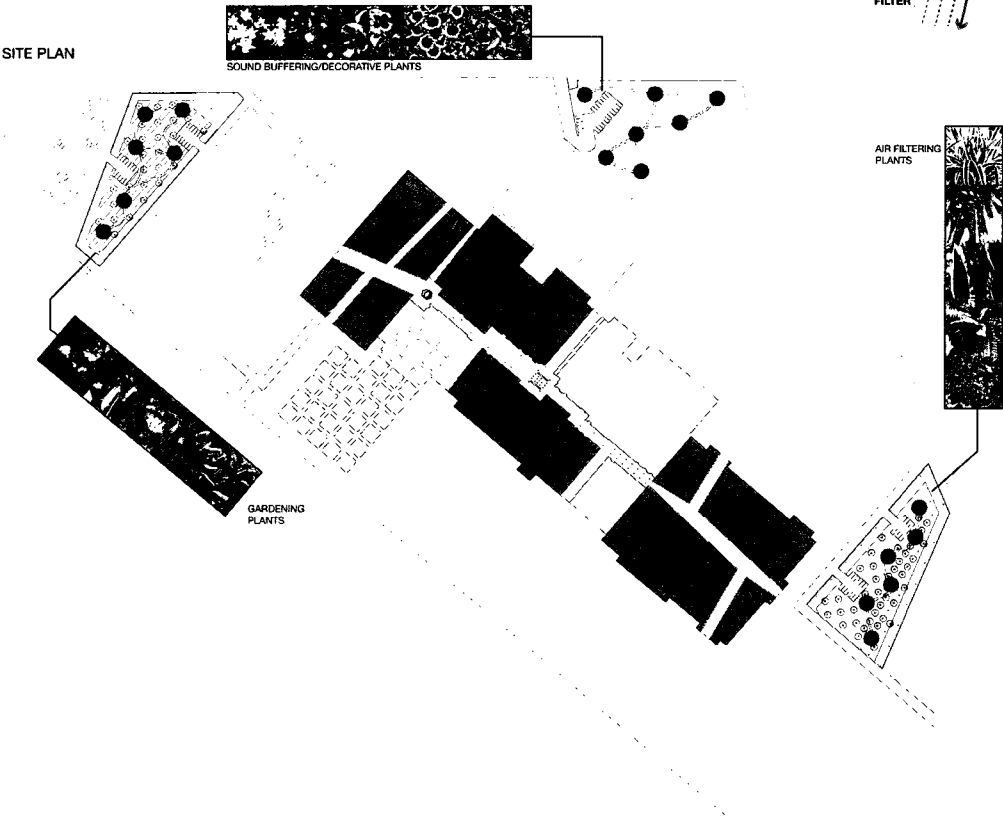
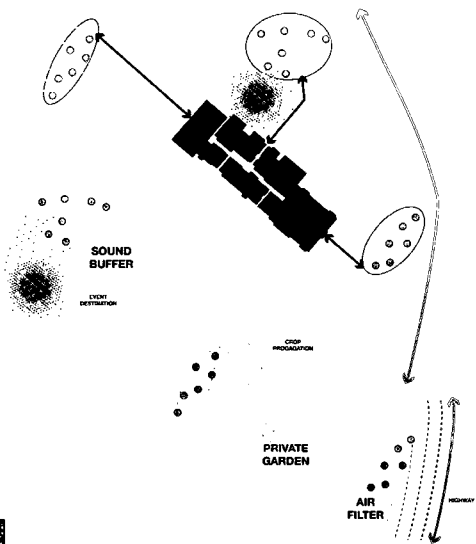


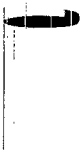
FIGURE 35: Modular Inhabitations

PROCEDURE FIVE Modular Inhabitations

- WHERE: RESIDUAL SPACES IN NEW INFRASTRUCTURE
- WHAT: HOUSING + AMENITIES
PERSONAL VERTICAL GARDENS
- HOW: NODES AT PERIMETER
CONNECT TO MALL
UTILIZE ADJACENCIES ON SITE
- WHY: HOUSING FOR WORKERS
COMPOST FOR CROPS
POPULATE SITE PERIMETER



PLANTS



WATER



COMPOST



OUTER SKIN



INNER SKIN



CORE

FIGURE 36

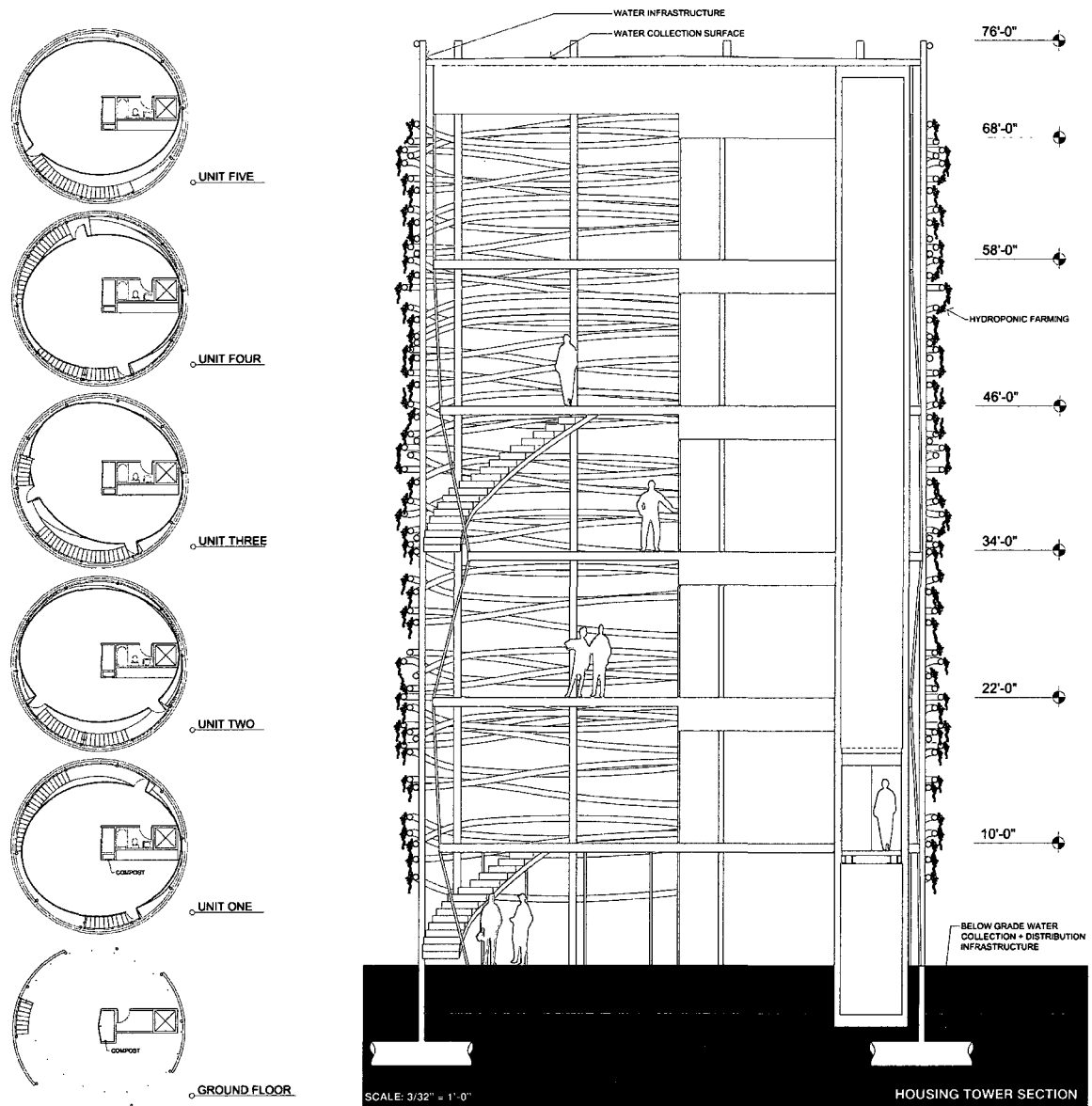


FIGURE 37: Modular Inhabitations: Tower Plan and Section



FIGURE 38: Modular Inhabitations: Rendering

The housing towers have an exterior skin that grows plants in accordance to the tower's site conditions. The plants are grown hydroponically from a tubular structure. The water travels vertically from the roof and is distributed into the horizontal tubular weave.

Conclusion

There are roughly 1500 malls in the United States and the malls that struggle and eventually fail are all regional scaled malls this size or smaller. The aim of this thesis is to create a manual for mall regeneration using the Northwest mall as a case study. These malls can be regenerated from a space of mostly consumption to a place with a combination of production, public, and little bit of consumption.

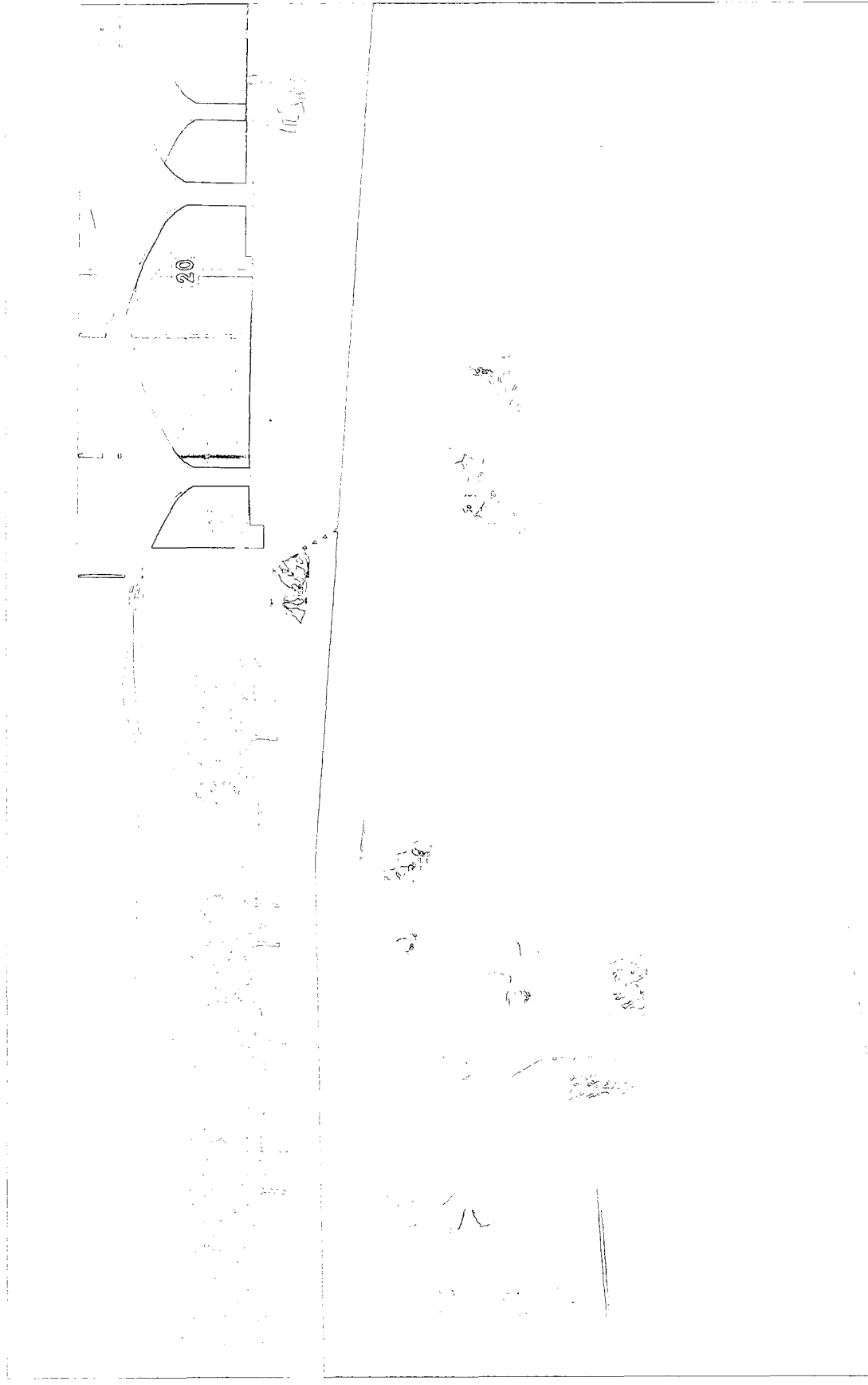


FIGURE 39: Rendering: Leisure

The intension of this manual for mall regeneration is to transform the existing typology of the mall from a suburban mecca into an urban park. The mall now absorbed into the city is no longer serving the suburban population and can be a place that gives back to the city.

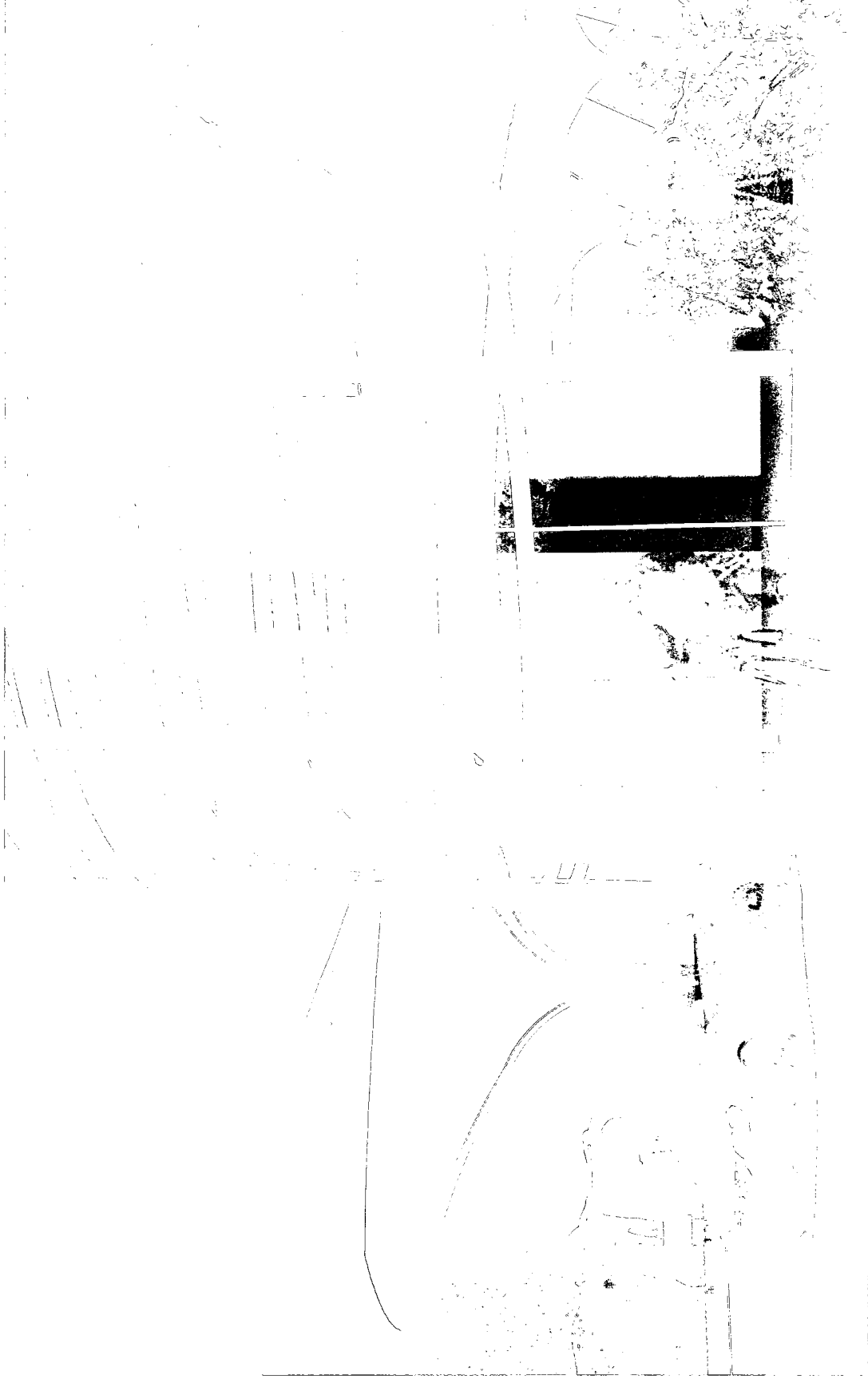


FIGURE 40: Rendering: Living

The urban farm is both vertical and horizontal. It becomes part of daily life for those who live at the new mall.

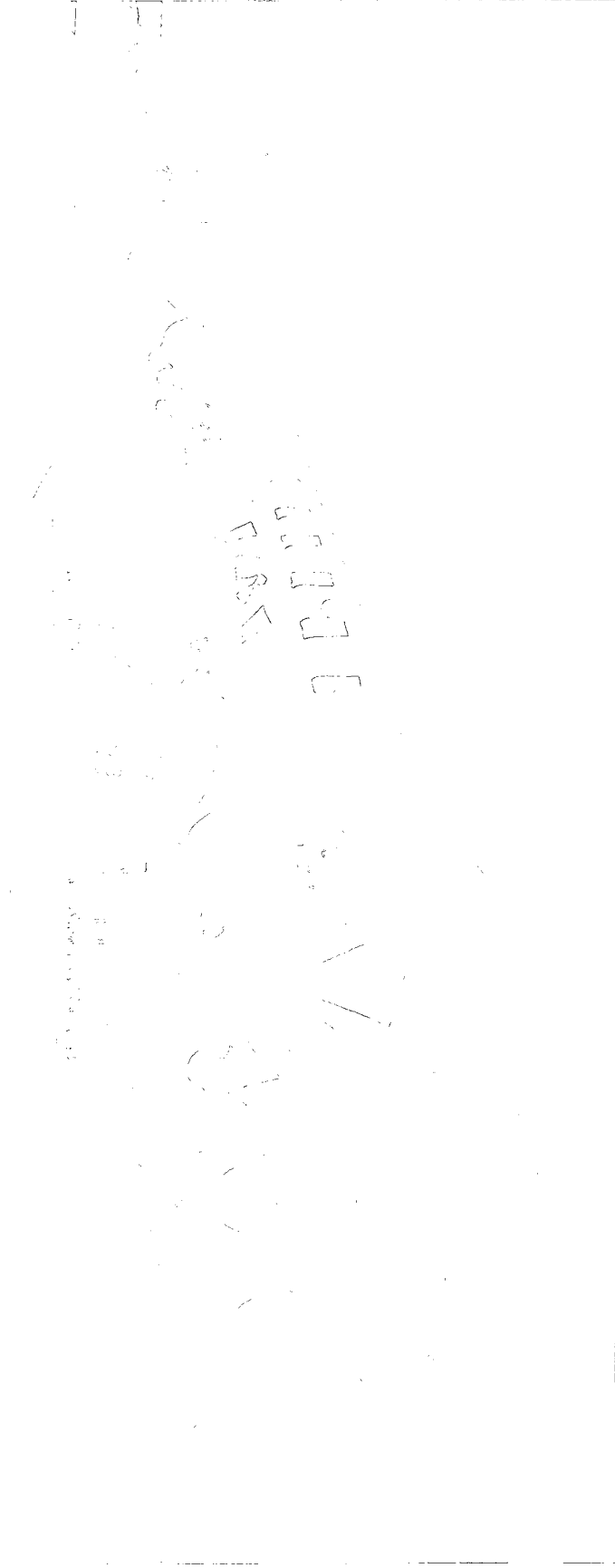


FIGURE 41: Rendering: Shopping

Consumption becomes a small part of the mall. Consumption is about consuming what is produced at the mall so that the products sold are unique and fresh.



FIGURE 42: Rendering: Perspective from Highway

A view from the 610 and 290 interchange shows the overall perspective of the all the elements coming together. The car garden, site energy hunter, building reoccupation, site energy gatherer, and modular inhabitations all work together to create an overall place of production.

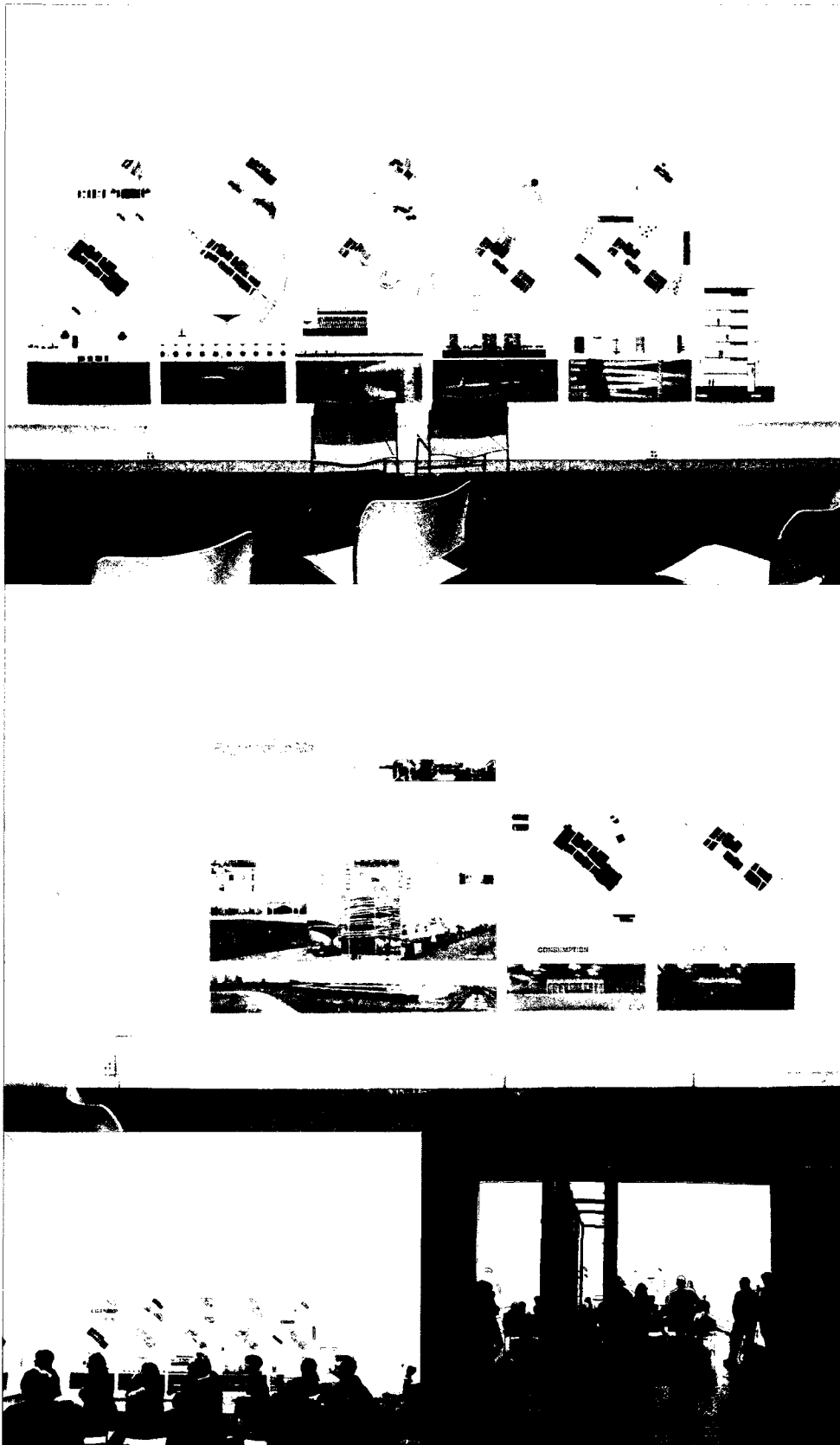


FIGURE 44: Photographs from Oral Presentation

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